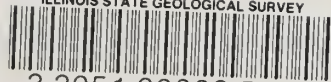



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H. M. Leighton, Chief
Urbana, Illinois

No. 88

C I R C U L A R

December 1942

STRUCTURE OF HERRIN (NO. 6) COAL BED IN
MACOUPIN COUNTY, EASTERN GREENE AND JERSEY,
SOUTHEASTERN SCOTT, AND SOUTHERN MORGAN
AND SANGAMON COUNTIES, ILLINOIS

By

J. Norman Payne

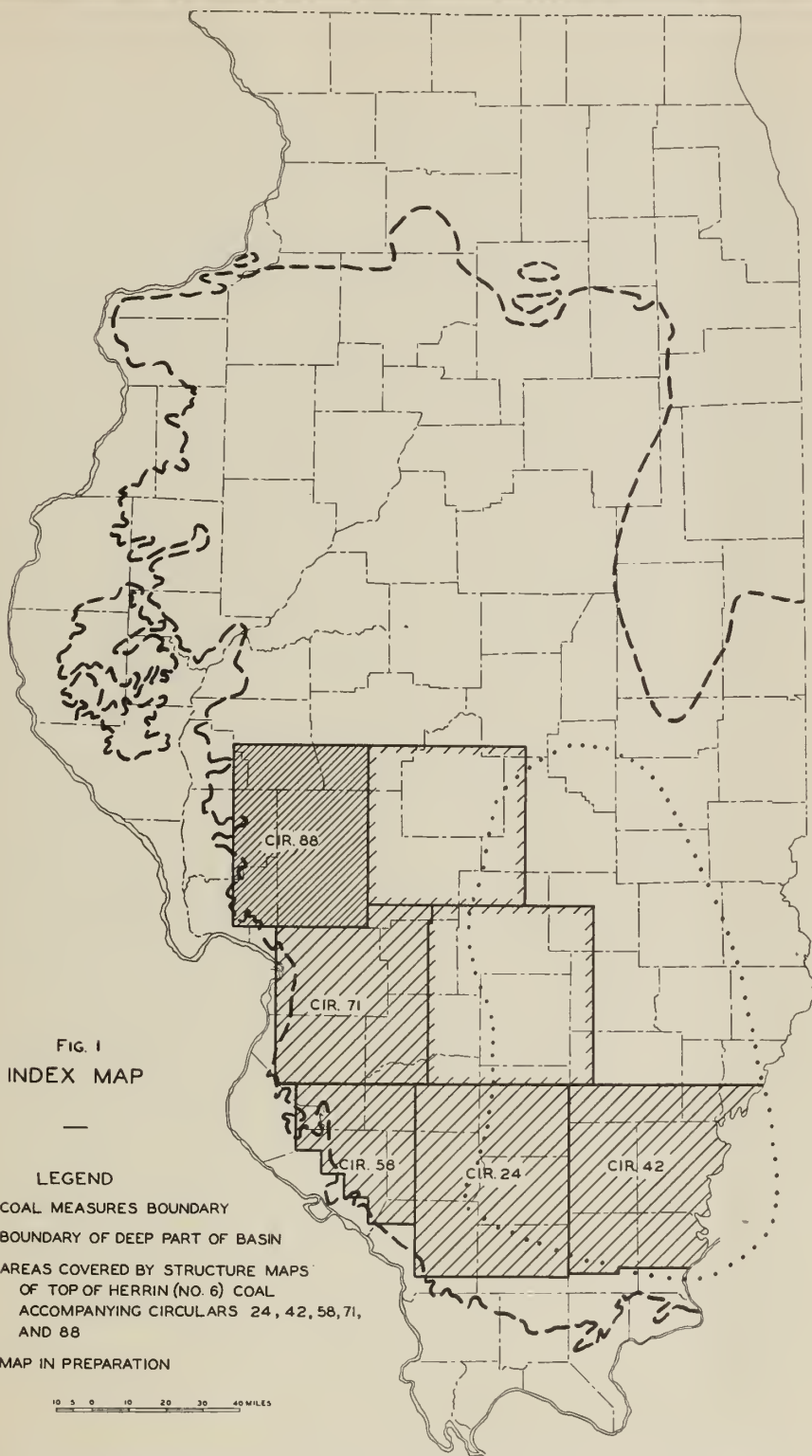
With Discussion of
OIL AND GAS POSSIBILITIES

By

William H. Easton

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STRUCTURE OF HERRIN (NO. 6) COAL BED
IN MACOUPIN COUNTY, EASTERN GREENE AND JERSEY,
SOUTHEASTERN SCOTT, AND SOUTHERN MORGAN
AND SANGAMON COUNTIES, ILLINOIS

By

J. NORMAN PAYNE

This circular presents a brief discussion of the structural features of the Herrin (No. 6) coal bed in Macoupin County and in parts of adjacent counties on the west and north (fig. 1), and also a brief consideration of the Pennsylvanian stratigraphy of the area. The north and south boundaries are respectively the north line of T. 14 N., and the south line of T. 7 N., and the east and west boundaries are respectively the east line of R. 6 W. and the west line of R. 11 W. of the 3rd P. M.

The area lies within a relatively short distance of St. Louis and East St. Louis and is traversed by the main lines of several railroads that connect St. Louis and Chicago. It is well supplied with excellent highways. Thus convenient and cheap transportation to markets is available.

Coal Mining

This region is an important part of the Illinois coal field. Most of the coal production, however, has been from railroad or shipping mines located in Macoupin County. The county's total production from 1882 to 1930 was 173,985,244 tons (21)*, giving it fourth rank among coal-producing counties in Illinois. Since 1930, it has ranked from second to fifth in various years with a fairly constant annual production of about 3 1/2 to 4 million tons. In 1940, ten shipping mines produced coal from Macoupin County (22); in 1920, at the height of coal-mining activity in Illinois, 17 shipping mines were in operation. About two-thirds of the coal produced in the entire area is from "captive" mines operated by one of the large western railroad companies, but none of this coal enters the general market. Until recently, two other large mines were also "captive" mines owned by a large oil-refining company, but these mines have been idle for several years. Their recently reported acquisition by a large coal company presages early increase in coal production. A number of the mines in the region, however, have been in operation for many years, several for more than 35 years; mining in them is approaching

* For references, see bibliography, page 7.

property boundaries and probably will stop soon. No new shipping mines have been opened in the region for more than 18 years. An abundant supply of coal still remains in reserve.

Mineable Coal Beds

Coal production in this area is mainly from the Herrin (No. 6 coal bed. A few small local mines work the No. 4 or the Colchester (No. 2) coal bed in the western part of the area where these lower coal beds lie near the surface, and a shaft at Medora has produced coal from a coal bed lying about 20 feet below the Colchester (No. 2) bed (pl. 3, Macoupin County No. 174).#

The Springfield (No. 5) coal bed is generally absent in this area except for a thin bed of coal and black "slate" (one or both of which probably represent the No. 5 bed) in a number of drill-holes scattered throughout the area (pl. 3, table 1).

The following table shows the extent of the No. 6 coal bed; the areas mined out, the reserve areas, and the reserve tonnage computed on the basis of one million tons per square mile per foot of thickness of the coal bed.

Coal Reserves

County	Average thickness. Feet	Area underlain by No. 6 coal bed. Square miles	Area of No. 6 coal mined out. Sq. miles	Reserve area Sq. miles	Reserve tonnage. Million tons
Greene	4 - 5 ($4\frac{1}{2}$)	50	1+	49	220
Jersey	3 - 4 ($3\frac{1}{2}$)	55	1+	54	189
Macoupin	6 - 7 ($6\frac{1}{2}$)	855	58	797	5,180
Morgan	3 - 4 ($3\frac{1}{2}$)	150	1+	149	522
Sangamon	6 - 7 ($6\frac{1}{2}$)	160	10	150	975
Total Reserve				1,199	7,086

The information at hand does not warrant an estimate of the reserves of coal represented by other coal beds that may be present.

County well numbers refer to map (pl. 4), tabulated well data, and well logs.

Coal beds below the Herrin (No. 6) bed. - At Medora, a shaft was sunk to a coal bed lying approximately 130 to 140 feet below the horizon of the No. 6 coal bed, about 20 feet below the Colchester (No. 2) coal bed, and a few feet above a thin layer of limestone. This coal bed, designated as the Medora, is regarded as the equivalent of the thin fairly widespread Wiley coal bed in western Illinois, where it lies some distance below the Colchester (No. 2) coal bed and a short distance above the thin persistent Seahorne limestone (20). The Medora coal bed has been reported in a number of logs of drill-holes located within this area (table 1).

The Colchester (No. 2) coal bed mined in the western part of the area is believed to be the bed which to the east is reported in drill-holes at a position 20 to 30 feet above the Medora coal, which latter bed is identified by reference to its underlying thin limestone, as noted above. The altitude, depth, and thickness of No. 2 coal and its distance below Herrin (No. 6) coal bed are presented in the tabulated data accompanying this report and in table 1. These data indicate that this coal bed lies fairly uniformly 80 to 90 feet below the Herrin (No. 6) bed but that locally the interval is 100 feet or more. In general, the coal beds are approximately parallel. The Colchester (No. 2) coal bed has been mined for local use at many places west of the line of outcrop of No. 6 coal bed in Greene County near Roodhouse, as indicated by the map and tabulated data. Where mined, it is generally about 30 inches thick.

The designation "No. 4" is applied loosely to two thick lenticular bodies of coal, one of which has been worked near Roodhouse and the other near Greenfield, and both of which appear to lie only a short distance below the position of the Springfield (No. 5) bed. These lenticular bodies of coal have been mined for many years but only for local trade. The coal bed at Roodhouse was reputed to furnish a block or "cannel" coal of special qualities, possibly because part of the bed is somewhat canneloid. In the Greenfield lens, the bed attains a thickness of nine feet (Greene County Nos. 3 and 76). The No. 4 coal bed or horizon lies between 40 and 60 feet below the top of the Herrin (No. 6) bed, but is not recorded in all drill records. In western Illinois there are locally two lenticular beds at this general position, and it is possible that the same relationship may exist in Greene County. In any event, this is a bed of very local commercial importance.

Key Horizons

The general close parallelism of most of the Pennsylvanian strata make limestones of definite stratigraphic position valuable as key horizons for estimating the depth to the Herrin (No. 6) coal bed or other workable beds at points where such limestones outcrop

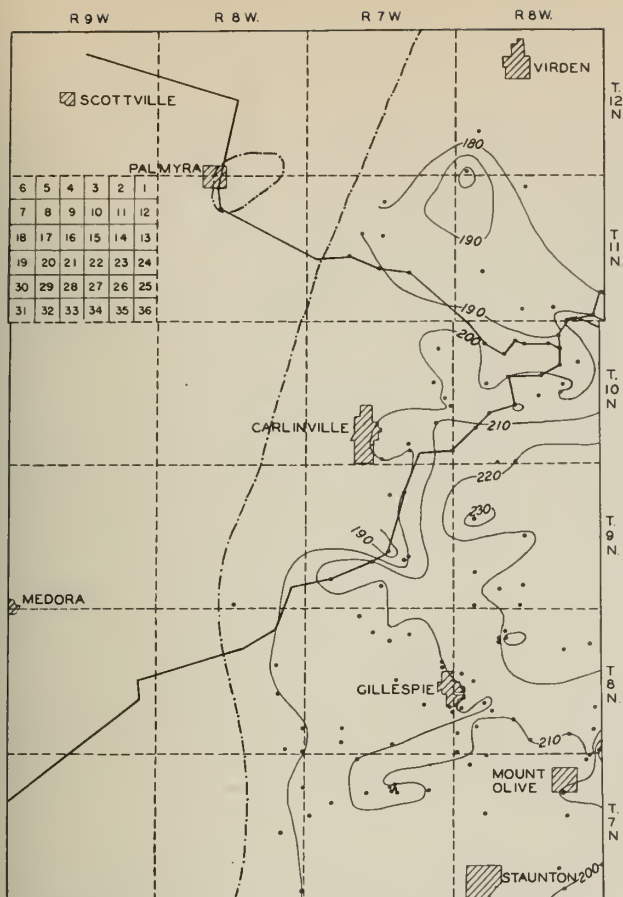
or are penetrated in drilling. Other beds, such as thin coal beds or black "slates," are of similar value if they can be positively identified.

Scottville limestone. - The limestone, for which the name Scottville is here proposed, is well exposed in outcrops along Apple Creek and its tributaries in southern Morgan and northwestern Macoupin counties in the vicinity of the village of Scottville. This limestone is lithologically similar to one which has been called the Carlinville limestone (19) and which crops out in the SW $1/4$ SW $1/4$ sec. 35, T. 10 N., R. 7 W., near the base of an exposure of Pennsylvanian rocks along Macoupin Creek (pl. 1, John R. Ball Section).

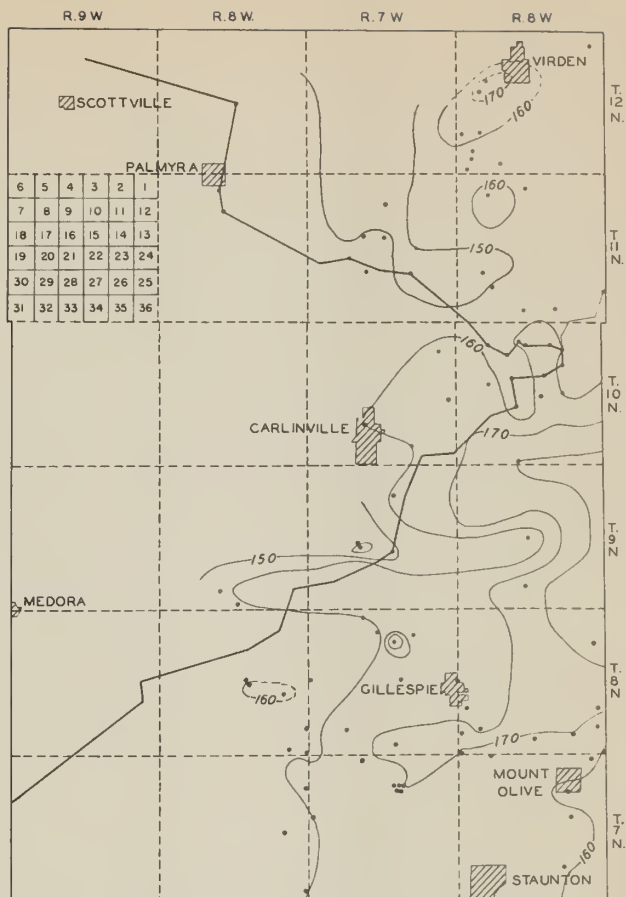
A thin bed of coal is present about 40 feet below the Scottville limestone, and another lies the same distance below the Carlinville limestone, with sandy shale beds intervening at both stratigraphic positions (pls. 1, 2, 3). This similarity of stratigraphic succession leads to confusion in interpreting the order and identity of the beds and to the possible error of correlating the Carlinville limestone with the outcropping Scottville limestone. However, the vertical distance from the Scottville limestone down to the Herrin (No. 6) coal bed is about 100 feet less than that from the Carlinville limestone down to the No. 6 bed. Furthermore, records of drill-holes which penetrated more than 200 to 225 feet of Pennsylvanian strata overlying the Herrin (No. 6) coal bed commonly show two limestones, the upper one of which is undoubtedly the Carlinville limestone, and the second about 100 feet lower. Thus, the two limestones have respectively the same relationship to No. 6 coal bed as do the Carlinville limestone near Carlinville and the Scottville limestone near Scottville. The presence of two such limestones as reported in the records of drill-holes (pls. 1, 2, 3), together with the field relationships as described, justifies differentiating these limestones as separate strata, the Scottville limestone lying about 100 feet below the Carlinville, and about 80 feet above the Herrin (No. 6) coal bed.

The distribution of outcrops of these two limestones is such that correlation of the Scottville limestone with the Carlinville limestone would require a decrease in the interval to No. 6 coal of about 100 feet within a distance of about four miles, from the vicinity of Palmyra to the vicinity of Scottville. No substantiating evidence of such convergence is known.

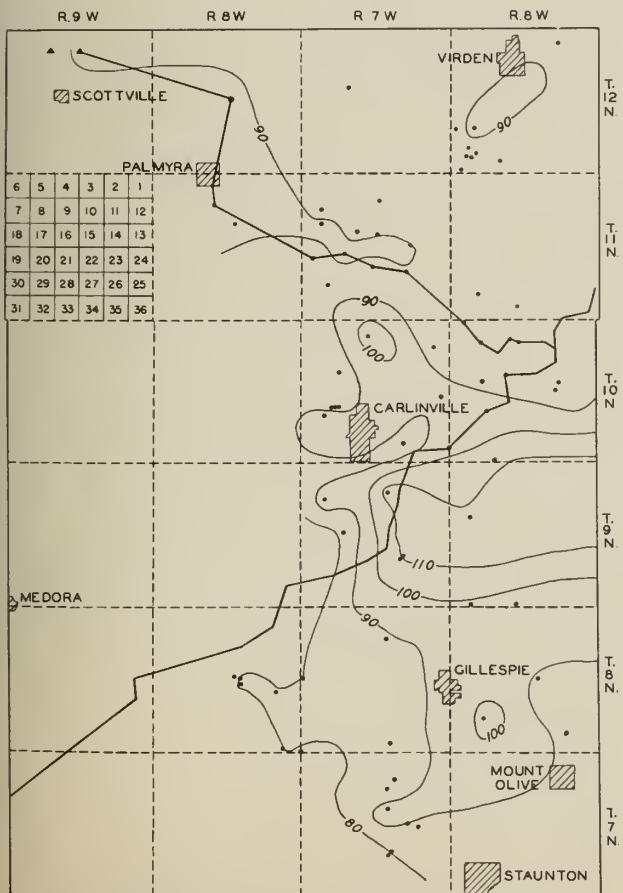
The Scottville limestone is gray to dark gray in color, fossiliferous, fine-grained, and massive. It is probably continuous between numerous outcrops in the northwest part of Macoupin County but is reported to be found only occasionally in drill-holes in the south half of the county. A thin bed of coal lying about 30 feet below the Scottville limestone, here named the Scottville coal bed, is fairly widespread throughout Macoupin County (table 1 and pls. 1, 2, 3).



TOP OF HERRIN (NO 6) COAL TO TOP OF CARLINVILLE LIMESTONE



TOP OF HERRIN (NO 6) COAL TO TOP OF TRIVOLI (NO 8) COAL



TOP OF HERRIN (NO 6) COAL TO TOP OF SCOTTVILLE LIMESTONE

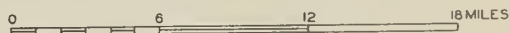
FIG. 2
ISOPACH MAPS SHOWING
THICKNESS OF INTERVALS FROM
TOP OF HERRIN (NO. 6) COAL TO TOP OF
CARLINVILLE LIMESTONE, TRIVOLI (NO 8) COAL,
AND SCOTTVILLE LIMESTONE

IN MACOUPIN COUNTY

LEGEND

- SUBSURFACE DATUM POINT
- ▲ OUTCROP DATUM POINT
- ISOPACH INTERVAL - 10 FEET
- LINE OF CROSS-SECTIONS, PLATES 1 AND 2
- - - - - APPROXIMATE BOUNDARY OF THE CARLINVILLE LIMESTONE

SCALE



Carlinville limestone. - The name Carlinville refers to the lowest limestone in an exposure of Pennsylvanian rocks along Macoupin Creek in the SW 1/4 SW 1/4 sec. 35, T. 10 N., R. 7 W., about a mile southeast of Carlinville. The nomenclature reverts to that employed by Lee (14) inasmuch as the limestone has since been called the Shoal Creek (1 & 10).

The name Shoal Creek is reserved for what is believed to be a higher limestone that crops out along Shoal Creek in the vicinity of Breese, described by Udden in 1907 (18), and for what is thought to be the same limestone occupying the uppermost position in the succession of Pennsylvanian beds cropping out southeast of Carlinville (pl. 1). To this limestone, the name La Salle has been applied (10), but because definite proof of this inferred correlation is lacking, the present report reverts to earlier terminology (12, 14). This upper limestone at Carlinville occupies the same relative position with respect to the Carlinville limestone that was given to the Shoal Creek in the early descriptions of geology of the Illinois mining districts, as published in the bulletins of the Cooperative Mining Series, particularly that describing the coal resources of District VII (Southwestern Illinois) (12).

The Carlinville limestone in most places lies from 180 to 200 feet above the Herrin (No. 6) coal bed and about 35 to 40 feet above a thin bed of coal which has been designated Trivoli (No. 8) (20) (pls. 1-3). This limestone member is well exposed by erosion south and southeast of Carlinville, east of Palmyra, and in quarries and along streams north of Plainview. It is reported commonly in records of drill-holes located east of R. 8 W., was encountered in relatively few drill-holes in R. 8 W., and is not reported farther west (table 1 and fig. 2).

Macoupin coal and limestone beds. - The Macoupin (10 & 20) coal bed is a thin layer of coal, generally less than 6 inches thick, that lies 230-250 feet above the Herrin (No. 6) coal bed and 30-40 feet above the Carlinville limestone (pls. 1-3, table 1). Overlying the coal bed is usually a black shaly shale ("slate") above which is a thin layer of fossiliferous impure shaly limestone. This group of beds is of value as a key horizon, but it is likely to be overlooked by drillers unless they are unusually discriminating in their observations. Its identification should generally be possible in cores or in drill-cuttings that are carefully collected.

Shoal Creek limestone. - The limestone herein regarded as the Shoal Creek limestone lies 40 to 60 feet above the Macoupin limestone and as much as 335 feet above the Herrin (No. 6) coal bed, the usual distance being about 300 feet in the three southern townships of Macoupin County, and from 250 to 290 feet in the three northern townships (table 1). This limestone member is usually about 10 feet thick, in places being interbedded with shale, especially in the upper part. It is rarely penetrated in drilling except in the eastern tier of townships, where it lies immediately beneath drift, as it is the uppermost Pennsylvanian member in the area (table 1).

Structural Features of Special Interest
With Respect to Coal Mining

The Herrin (No. 6) coal bed has a regional easterly dip of from 10 to 15 feet per mile. An outcrop of the coal bed in the NE 1/4 NW 1/4 sec. 15, T. 7 N., R. 10 W., (Jersey County No. 27)* has an altitude of 566 feet above sea-level, the highest known altitude of the coal bed in the area; the lowest recorded altitude is 250 feet above sea-level, in the SW 1/4 SW 1/4 SW 1/4 sec. 15, T. 18 N., R. 6 W. (Macoupin County Well No. 136). The intervening distance is about 25 miles, the average dip therefore being about 12 feet to the mile.

The eastward dip is irregular, but it rarely exceeds 15 feet per mile. In a few places, such as east of Carlinville and north of Bunker Hill, it is locally as much as 25 feet per mile. Locally anticlines, domes, terraces, and basins are present. The location and character of these structures are indicated on the structure map accompanying this report and should be carefully considered in choosing sites for mining operations.

From available information it appears that faults are rare, of small displacement and brief extension, and because they are unimportant, they have not been mapped. Small displacements of the coal bed have been observed at numerous places in the mines in the Staunton - Gillespie region, but these faults rarely affect the limestone caprock and are usually associated with lenses of gray shale ("soapstone") occurring between the black shale and the coal bed, between the black shale and the caprock, or adjacent to limestone bosses or pendants protruding downward from the caprock.

The accompanying structure map has been constructed from unevenly distributed datum points. Drilling and mining operations are concentrated in the east half of the area; hence, it is possible to delineate the structure with greater accuracy and detail in the east than in the west half. In order to eliminate the personal element so far as possible, the contours have been drawn mechanically, that is, a constant slope is assumed to exist between datum points, and the distances between contours have been scaled accordingly.

Revision of Present Map and
Preparation of Maps of Other Areas

The present map is the fifth of a series of maps showing the structure of Herrin (No. 6) coal bed in southern Illinois (Circulars 24, 42, 58, and 71). Like the others, it is a progress map

* County well numbers refer to map (pl. 4), tabulated well data, and well logs.

on which additions and corrections can be readily made. Because of new drilling and the occasional discovery of records of earlier drilling, it is expected that additional data will become available from time to time. It is hoped that the maps of two more areas can be completed within the next two years. These maps will delineate the structural features in most of Montgomery, Christian, Fayette, and Marion counties, and adjacent parts of Sangamon, Macon, Shelby, Effingham, Clay, Wayne, Jefferson, Washington, Clinton, and Bond counties.

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Table 1. - Tabulation of intervals between top of No. 6 coal and top of various key beds, and average thicknesses of key beds in Macoupin County.

Bed	T. 7 N., R. 6 W.					T. 7 N., R. 7 W.				
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points		Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	
	(Above No. 6 coal)									
Shoal Creek ls.	301-314	306	19'	3						
Macoupin coal	217-241	233	5"	6						
Carlinville ls.	194-212	205	7'	9		202-216	209	6'	10	
No. 8 coal	152-165	161	5"	5		160-175	168	5"	7	
Scottville ls.						78-93	82	2'	7	
Scottville coal		66	4"	1		60-71	66	6"	4	
Piasa ls.	32-55	42	4'	11		35-47	41	4'	26	
No. 7 coal	32-40	33	7"	9		26-36	32	1'-6"	18	
Horizon of top of No. 6 coal from which measurements are made.										
	(Below No. 6 coal)									
No. 5 coal		26	Bk. sl.	1						
No. 2 coal	91-93	92	2'-3"	2		85-94	88	1'-6"	3	
Medora coal	134-144	136	2'-5"	3		130-134	132	1'-6"	2	
Seahorne ls.	136-138	137	2'	2		135-137	136	5'	3	

Table 1. - (Continued)

	T. 7 N., R. 8 W.				T. 7 N., R. 9 W.			
Bed	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
(Above No. 6 coal)								
Shoal Creek ls.		233	Bk.sl.	1	No data			
Macoupin coal	198-205	201	8'	3				
Carlinville ls	156-168	161	2"	3				
No. 8 coal								
Scottville ls.								
Scottville coal								
Piasa ls.	35-39	37	5'	5				
No. 7 coal	18-32	21	1'-10"	5				
Horizon of top of No. 6 coal from which measurements are made.								
(Below No. 6 coal)								
No. 5 coal								
No. 2 coal								
Medora coal								
Seahorne ls.		139	10'	1				

Table 1. - (Continued)

Bed	T. 8 N., R. 6 W.				T. 8 N., R. 7 W.			
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
(Above No. 6 coal)								
Shoal Creek ls.	303-335	329	11'	12	300-308	304	9'	2
Macoupin coal	242-272	253	5"	12	227-249	236	3"	8
Carlinville ls.	189-235	214	8'	21	201-210	205	7'	1
No. 8 coal	159-183	169	5"	10	158-185	165	3"	1
Scottville ls.	82-115	95	1'	3	81-88	84	1'	4
Scottville coal	56-75	64	3"	4	62-66	63	Bk. sl.	3
Piasa ls.	32-63	47	5'	23	35-55	44	4'	14
No. 7 coal	21-47	36	1'-4"	11	26-42	33	1'-5"	9
Horizon of top of No. 6 coal from which measurements are made.								
(Below No. 6 coal)								
No. 5 coal	29-39	33	1'	3				
No. 2 coal	85-112	96	2'-6"	3		84	2'	1
Medora coal	129-138	133	1'-9"	3				
Seahorne ls.	135-148	142	1'	2				

Table 1. - (Continued).

Bed	T. 8 N., R. 8 W.				T. 8 N., R. 9 W.			
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
	(Above No. 6 coal)							
Shoal Creek ls.	227-228	228	2"	2				
Macoupin coal	198-202	199	6"	5				
Carlinville ls.	152-165	158	7"	5				
No. 8 coal	76-82	80	"	7				
Scottville ls.	61-69	65	3"	2				
Scottville coal	32-46	36	5"	20		32	5'	1
Piasa ls.	16-33	26	9"	16		27	5"	1
No. 7 coal								
Horizon of top of No. 6 coal from which measurements are made.								
	(Below No. 6 coal)							
No. 5 coal	80-95	87	1'-5"	8		92	1'	1
No. 2 coal	130-138	133	6"	6		130	4'	1
Medora coal	133-140	136	9'	7		134	7'	1
Seahorne ls.								

Table 1. - (Continued)

Bed	T. 9 N., R. 6 W.				T. 9 N., R. 7 W.			
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
	(Above No. 6 coal)							
Shoal Creek ls.	294-312	301	8'	3				
Macoupin coal	249-263	255	6"	3				
Carlinville ls.	212-228	221	6'	6	181-233	205	7'	8
No. 8 coal	154-177	166	8"	2	133-161	157	11"	5
Scottville ls.		94	5'	1	93-115	108	5'	5
Scottville coal					42-60	54	3"	5
Piasa ls.	53-68	59	6'	5	25-48	36	7'	29
No. 7 coal	29-58	56	10"	5	15-35	25	2'	10
Horizon of top of No. 6 coal from which measurements are made.								
	(Below No. 6 coal)							
No. 5 coal	29-34	32	Bk.sl.	2		39		1
No. 2 coal					81-105	91	1'-3"	10
Medora coal					110-128	118	2'-5"	11
Seahorné ls.					115-147	129	5'	16

Table 1. - (Continued)

Bed	T. 9 N., R. 8 W.				T. 9 N., R. 9 W.			
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
	(Above No. 6 coal)							
Shoal Creek ls.								
Macoupin coal								
Carlinville ls.								
No. 8 coal		159	3"	1				
Scottville ls.								
Scottville coal	48-66	56	5"	5				
Piasa ls.	28-38	32	4'	11		30	8'	1
No. 7 coal	14-24	16	1'-3"	3				
Horizon of top of No. 6 coal from which measurements are made.								
	(Below No. 6 coal)							
No. 5 coal						107	2'	2
No. 2 coal					104-110	107	2'	2
Medora coal								
Seahorne ls.					157-160	159	10'	2

Table 1. - (Continued)

Bed	T. 10 N., R. 6 W.				T. 10 N., R. 7 W.			
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
	(Above No. 6 coal)							
hoal Creek ls.	266-288	279	10'	13	263-288	271	4'	4
acoupin coal	225-241	231	2"	13	234-241	238	5"	2
arlinville ls.	189-220	199	6'	20	196-212	203	5'	9
o. 8 coal	151-180	160	8"	14	160-166	162	3"	4
cottville ls.	82-110	90	3'	12	80-110	91	2'	10
cottville coal	40-71	56	6"	13	48-68	59	2'	10
iasa ls.	27-47	37	5'	18	25-47	33	6'	17
o. 7 coal	21-32	26	1'-5"	11	15-34	27	10"	8

horizon of top of No. 6 coal from which measurements are made.

	(Below No. 6 coal)							
o. 5 coal	20-40	30	Bk. sl.	2				
o. 2 coal	91-103	96	3'-6"	3	83-102	94	1'-9"	4
edora coal	135-146	138	1'-5"	3	114-127	118	3'-4"	6
eahorne ls.	142-157	147	6'	2	120-140	131	8'	8

Table 1. - (Continued)

	T. 10 N., R. 8 W.				T. 10 N., R. 9 W.			
Bed	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
	(Above No. 6 coal)							
Shoal Creek ls.								
Macoupin coal								
Carlinville ls.								
No. 8 coal								
Scottville ls.								
Scottville coal		51		1				
Piasa ls.		32	8'	1				
No. 7 coal								
Horizon of top of No. 6 coal from which measurements are made.								
	(Below No. 6 coal)							
No. 5 coal								
No. 2 coal								
Medora coal								
Seahorne ls.		136	6'	1				

Table 1. - (Continued)

Bed	T. 11 N., R. 6 W.				T. 11 N., R. 7 W.			
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
	(Above No. 6 coal)							
Shoal Creek ls.	238-265	249	8'	4				
Macoupin coal	201-226	213	0'-6"	2				
Carlinville ls.	173-200	185	4'	7	179-192	187	4'	6
No. 8 coal	132-167	154	1'-0"	7	138-153	149	8"	7
Scottville ls.	82-88	85	1'-4"	2	85-92	89	4'	9
Scottville coal	39-64	53	0'-4"	6	41-55	49	9"	9
Piasa ls.	26-35	31	5'	8	26-32	29	3'	8
No. 7 coal	10-30	22	1'-2"	8				
Horizon of top of No. 6 coal from which measurements are made.								
	(Below No. 6 coal)							
No. 5 coal	25-37	31	0'-6"	2				
No. 2 coal		90	2'-0"	1		91	Bk.sl	1
Medora coal		135	2'-0"	1				
Seahorne ls.		143	7'	1		143	3'	1

Table 1. - (Continued)

Bed	T. 11 N., R. 8 W.				T. 11 N., R. 9 W.			
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
(Above No. 6 coal)								
Shoal Creek ls.								
Macoupin coal								
Carlinville ls.	186-194	187	2'	2				
No. 8 coal	157-158	158	4"	2				
Scottville ls.	93-100	97	5'	3				
Scottville coal	61-67	64	5"	3				
Piasa ls.	32-36	34	3'	2				
No. 7 coal		19	7"	1				
Horizon of top of No. 6 coal from which measurements are made.								
(Below No. 6 coal)								
No. 5 coal		25	Bk.sl.	1				
No. 2 coal		82	1'-6"	1				
Medora coal	118-125	121	1'-4"	2				
Seahorne ls.	120-131	124	8'	3				

Table 1. - (Continued)

Bed	T. 12 N., R. 6 W.				T. 12 N., R. 7 W.			
	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
(Above No. 6 coal)								
Shoal Creek ls.	248-270	258	9'	4				
Macoupin coal	224-248	233	0'-2"	4				
Carlinville ls.	166-205	181	5'	3				
No. 8 coal	136-168	158	0'-10"	11				
Scottville ls.	77-94	84	2'-6"	9		81	6'-6"	1
Scottville coal	32-49	40	0'-5"	4				
Piasa ls.	30-36'	32'	5'	11		40	3'-6"	1
No. 7 coal	24-29'	27	1'-2"	3				
Horizon of top of No. 6 coal from which measurements are made.								
(Below No. 6 coal)								
No. 5 coal	21	Bk.sl.	1					
No. 2 coal	94	Bk.sl.	1			95	Trace	1
Medora coal	136	Bk.sl.	1					
Seahorne ls.	148	2'	1			132	13'	1

Table 1. - (Concluded)

	T. 12 N., R. 8 W.				T. 12 N., R. 9 W.			
Bed	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points	Range of interval, bed to top of No. 6 coal (ft.)	Average interval, bed to top of No. 6 coal (ft.)	Average thickness of bed	No. datum points
	(Above No. 6 coal)							
Shoal Creek ls.								
Macoupin coal								
Carlinville ls.								
No. 8 coal		160	1'-00"	1				
Scottville ls.	88-91	89	6'	2	88-96	92	4'	2
Scottville coal		53	3'-00"	1	60-63	62	0'-10"	2
Piasa ls.	33-39	36	3'	2	24-38	31	3'	3
No. 7 coal								

Horizon of top of No. 6 coal from which measurements are made.

	(Below No. 6 coal)		
No. 5 coal			
No. 2 coal	86	1'-00"	1
Medora coal	130	4'-00"	1
Seahorne ls.	136	7'	1

Table 2. - Compilation of intervals between top of Herrin (No. 6) coal and tops of Scottville limestone, Trivoli (No. 8) coal, and Carlinville limestone in Macoupin County.
(To accompany fig. 2)

Location				Interval from top of No. 6 coal to top of		
Twp.	Rge.	Sec.	County number	Scottville limestone	Trivoli (No. 8) coal	Carlinville limestone
7N	6W	1H5	358			212
7N	6W	1H6	255		162	204
7N	6W	5H7	234		165	205
7N	6W	6E5	411			208
7N	6W	11D5	258		152	194
7N	6W	14D5	362		165	208
7N	6W	17D6	236			209
7N	6W	26C6	239		162	205
7N	6W	35D5	240			200
7N	7W	4G8	188		168	210
7N	7W	8A8	189			205
7N	7W	9E4	190			215?
7N	7W	10D3	195			216
7N	7W	10D4	199	82	167	209
7N	7W	10E2	197		173	
7N	7W	10E3	194			204?
7N	7W	10E3	196		168	
7N	7W	10E3	198		175	214
7N	7W	10E4	200		168	210
7N	7W	10H2	193	84		
7N	7W	12E7	202			209?
7N	7W	14A6	292	90		
7N	7W	15F5	387	93		
7N	7W	18E7	209		160	202
7N	7W	23H3	211	86		
7N	7W	27G5	224	78		
7N	7W	27H4	223	83		
7N	8W	12F1	178		168	205
7N	8W	24G8	182		156	198
7N	8W	36D1	187		159	200
8N	6W	4A8	285			224
8N	6W	8F1	452			215
8N	6W	8G1	286			213
8N	6W	9G8	132			235
8N	6W	11C4	134			224
8N	6W	12E4	135		183	223
8N	6W	15A4	136	88		

(Continued on page 22)

Table 2. - (Continued)

Location				Interval from top of No. 6 coal to top of		
Twp.	Rge.	Sec.	County number	Scottville limestone	Trivoli (No. 8) coal	Carlinville limestone
8N	6W	18A2	138			214
8N	6W	18C6	288			215
8N	6W	19G6	139			210
8N	6W	20A6	289			205
8N	6W	25A2	322		166	215
8N	6W	25H3	140		172	217
8N	6W	28D5	141			210
8N	6W	29D7	142	115?		
8N	6W	29G4	143			215
8N	6W	30A1	144		168	207
8N	6W	30H6	145		167	213
8N	6W	31A8	147		169	213
8N	6W	31H8	146		173	219
8N	6W	34F8	148		168	211
8N	6W	35G3	149	82	169	210
8N	6W	36A1	324		159	189
8N	7W	4A3	152		159	201
8N	7W	4F7	151		160	202
8N	7W	10F5	153	88	185	208
8N	7W	11H7	154		161	202
8N	7W	13A1	315		160	
8N	7W	13E4	156			207
8N	7W	13F4	155			210
8N	7W	15A3	157		162	204
8N	7W	18A8	158	80?	158	
8N	7W	23A2	290			203
8N	7W	25G1	159			201
8N	7W	25G2	163			206
8N	7W	29A4	160		167	204
8N	7W	32D5	161			203
8N	7W	34D4	162	85	172	208
8N	8W	14F2	168			202
8N	8W	15A5	455	80	152	
8N	8W	15B7	323	77		
8N	8W	22H4	457	82	165	
8N	8W	23E1	169	81	161	199
8N	8W	25A1	170		158	198
8N	8W	36A1	172	75?	154	199
8N	8W	36B6	173	80	158	198
9N	6W	18F1	125	112		233
9N	6W	21H1	127		154	218
9N	6W	30D1	128			214
9N	6W	31A1	129	98		212
9N	6W	32G1	130			227
9N	6W	33A2	131	94		228

(Continued on page 23)

Table 2. - (Continued)

Location				Interval from top of No. 6 coal to top of		
Twp.	Rge.	Sec.	County number	Scottville limestone	Trivoli (No. 8) coal	Carlinville limestone
9N	6W	33H2	150		177	224
9N	7W	7D1	463	93?		
9N	7W	10C1	296		161	
9N	7W	10F1	112			200
9N	7W	10F5	111	115		195
9N	7W	17A3	116	81		
9N	7W	21E7	275		135?	
9N	7W	21F8	280		142?	
9N	7W	22D5	122		148	181
9N	7W	23A8	123	111		195
9N	7W	23A8	448	107		197?
9N	7W	28H4	283			210
9N	7W	29B8	124			214
9N	7W	34H8	284			208
9N	8W	33G5	88		159	
9N	8W	34A8	341		157	193
10N	6W	2C5	443			190
10N	6W	4A4	45	87	161	192
10N	6W	6H3	46	86		
10N	6W	8H5	47	82	157?	199
10N	6W	9E7	48		155	195
10N	6W	9H1	49	86	161	194
10N	6W	10H1	50		161	192
10N	6W	11A4	51		152	189
10N	6W	11G5	52		160	194
10N	6W	12B7	445			192
10N	6W	14C4	53	86		205
10N	6W	15E4	54		162	204
10N	6W	16E6	55	85	157	200
10N	6W	17C5	56	88	164	199
10N	6W	20A4	61	93		204
10N	6W	21E4	58		151	190
10N	6W	22G4	59		164	204
10N	6W	23H5	60	83?	160	199
10N	6W	30D1	62	98		212
10N	6W	32A1	63	102		214
10N	6W	33A4	64	110	180	220
10N	7W	4B3	65	102		
10N	7W	12E5	68	86	162	205
10N	7W	13D7	69			196
10N	7W	17H4	70	85		
10N	7W	20C5	332	85		
10N	7W	20C6	334	87		
10N	7W	20C6	336	80		

(Continued on page 24)

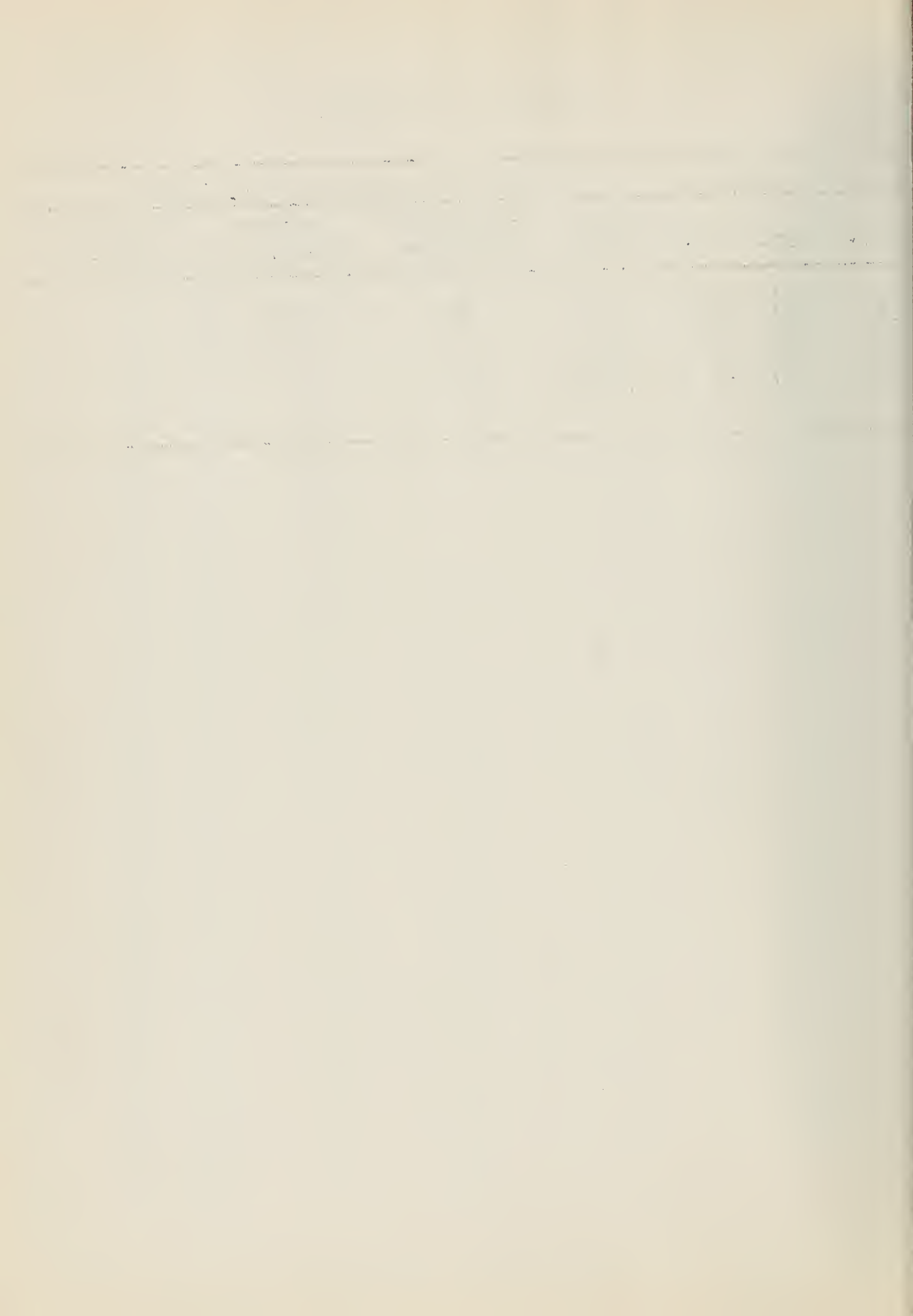
Table 2. - (Continued)

Location				Interval from top of No. 6 coal to top of		
Twp.	Rge.	Sec.	County number	Scottville limestone	Trivoli (No. 8) coal	Carlinville limestone
10N	7W	24D2	72			201
10N	7W	24G4	73	93	116	203
10N	7W	25F6	74			210
10N	7W	28F7	3		160	
10N	7W	30H1	446	110		
10N	7W	34B7	76			200
10N	7W	35F7	78	85		200?
10N	7W	35G8	79		161	203
10N	7W	36E1	81	97		212
11N	6W	4E2	33		154	175
11N	6W	5B7	244		167	
11N	6W	20A8	36		132	186?
11N	6W	25B1	38		158	180
11N	6W	29E5	39		153	
11N	6W	30A1	41	88		
11N	6W	33E3	42	82	157	183
11N	6W	34E1	43		159	185
11N	6W	35A4	442			200
11N	6W	36B4	44			190
11N	7W	7E1	502	87		
11N	7W	10G7	22	85	144	179
11N	7W	14A6	23	90	150	
11N	7W	15E8	24	89	152	186
11N	7W	16E6	25	88	151	190
11N	7W	18H3	57	91		
11N	7W	19E5	26	86?		
11N	7W	20E3	27	92	153	192
11N	7W	21B1	28	87	151	192
11N	7W	23A7	29	88	138	183
11N	7W	29D8	31	83		
11N	8W	4E4	19	99	157	194
11N	8W	9F4	20	100	158	180
11N	8W	15H6	342	93?		
12N	6W	2D4	1		145	
12N	6W	2D6	2	88		
12N	6W	8A7	241		175?	
12N	6W	18E1	4		175?	
12N	6W	30A3	8	88	155	
12N	6W	30H1	7	94	161	171?
12N	6W	30H7	5	87	168	
12N	6W	31B5	6	82	153	205
12N	6W	31F2	10	80		
12N	6W	31F3	9	77	158?	
12N	6W	31H1	11	80	158	

(Continued on page 25)

Table 2. - (Concluded)

Location				Interval from top of No. 6 coal to top of		
Twp.	Rge.	Sec.	County number	Scottville limestone	Trivoli (No. 8) coal	Carlinville limestone
12N	6W	32E1	12	83	154	
12N	7W	17E1	305	81		
12N	8W	15B7	15	91	160	
12N	9W	3	Outcrop	96		
12N	9W	4 to 10	Outcrop	88		



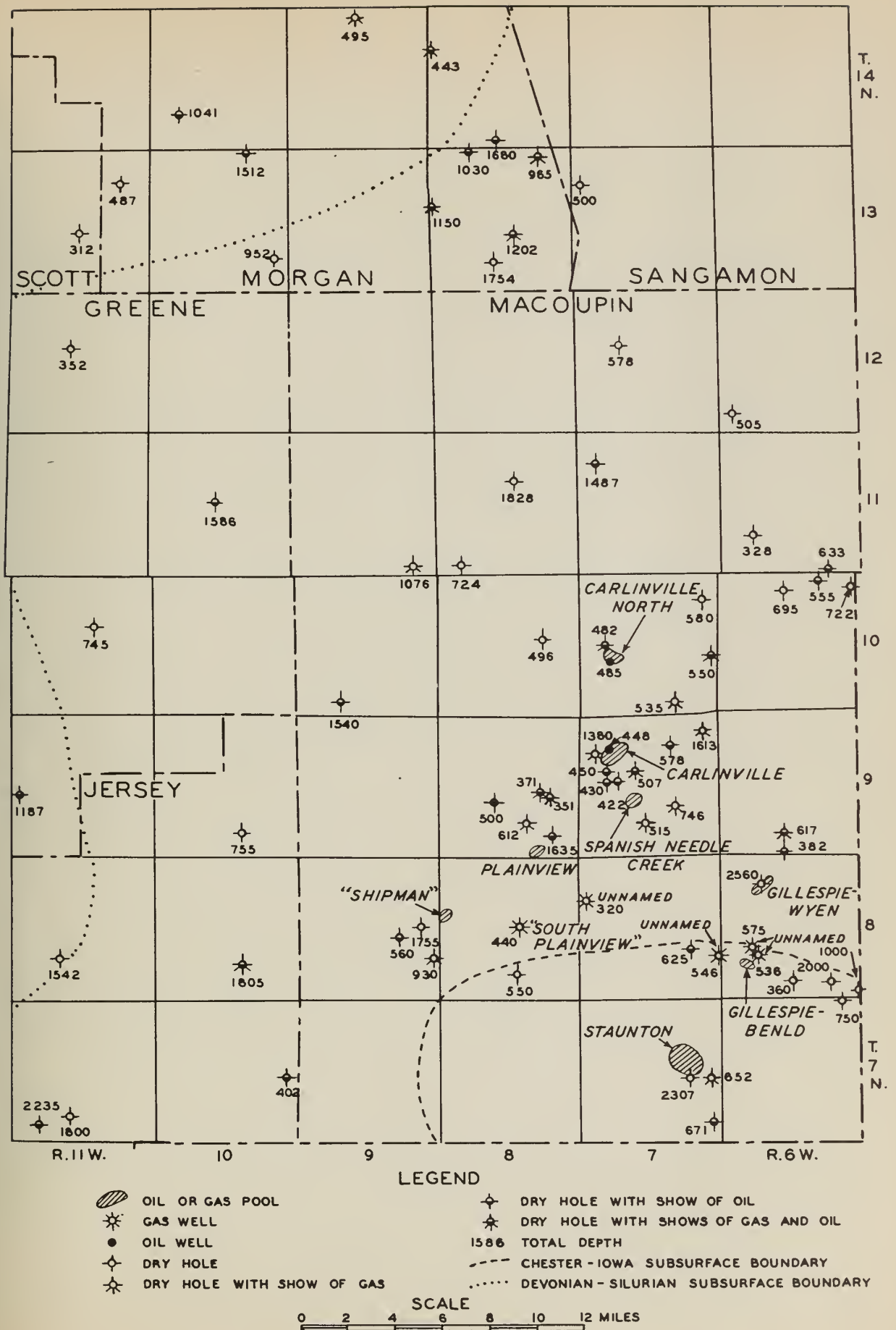


FIG. 3 - INDEX MAP SHOWING OIL AND GAS DEVELOPMENT IN THE AREA

OIL AND GAS POSSIBILITIES

By

WILLIAM H. EASTON

Introduction

This summary of oil and gas development and possibilities is based on the structural features of coal No. 6. Prospecting is recommended in several areas but is discouraged in other areas in which proof of closure is lacking. There may be small amounts of oil or gas along anticlines that have small unrevealed closure, but the amounts are not likely to be commercial.

Most of the drilling has been in the form of coal tests, many of which entered the lower Pennsylvanian sandstones. There are no records of some of the coal tests or of more numerous oil and gas tests that were drilled years ago. Moreover, it is not possible to check up on production of all wells or pools. In the following report, the records of wells are used as reported to the Geological Survey; some records of shows of oil and gas are probably omitted and some reports of shows may be inaccurate, but in any case, the available information is reviewed herein for the benefit of the industry.

Possible Producing Formations

Possible producing formations in the region are ten in number, namely: (1) Pennsylvanian sandstones, (2) Chester sandstones, (3) McClosky limestone, (4) St. Louis limestone, (5) Salem limestone, (6) Burlington-Keokuk limestones, (7) Devonian limestone, (8) Niagaran dolomites, (9) "Trenton" limestone, and (10) Ordovician sandstones and dolomites below the "Trenton".

Only the Pennsylvanian system has been extensively or successfully prospected in the area. Production from the Pennsylvanian has come from sandstone strata in the lower part of the system. These strata have been formerly referred to as Pottsville, but are now known to represent several other groups of the Pennsylvanian system.

The Chester sandstones, which produce oil in central and southeastern Illinois, are restricted chiefly to the southeast corner of the area where they are thin. They are also probably

represented by thin deposits left as residual outliers by pre-Pennsylvanian erosion. Because Chester strata are thin, irregularly distributed, and close to the surface, they are thought not likely to produce oil or gas in the area.

The McClosky limestone, which is very productive in the Illinois basin, is a possible producing formation in part of this area, especially in the southeast portion where it has a greater cover of sediments. No shows of oil or gas have been reported to date in the McClosky in this area. Outside the area of Chester sediments, it is likely to be absent, owing to pre-Pennsylvanian erosion.

One well (Macoupin County well No. 462) had a show of gas in the St. Louis limestone. The Salem limestone is the producing formation in the Jacksonville gas field in Morgan County. Shows are reported from the Burlington-Keokuk limestones in one well.

The Devonian limestone is absent in the northwest part of the area. It produces in the Sorento pool in northwestern Bond County. The Niagaran limestones and dolomites are overlain directly by Pennsylvanian strata in the northwest part of the area. Shows of gas have been reported from the "Niagaran" in the area, and it is the producing formation in the Pittsfield gas field in Pike County.

The "Trenton" limestone is the oldest producing formation in Illinois. The discovery of very good "Trenton" production near St. Jacob in southeastern Madison County in July 1942 makes the prospects of other areas in western Illinois look more favorable. It should be noted, however, that "Trenton" structural "highs" may not extend into younger beds because such "highs" may have been formed before the younger beds were deposited. Shows of oil were reported in Lower Ordovician beds in one well (Jersey County well No. 5).

Structural Features

The names of the geological structures (pl. 4) used in this report are listed below, with a note as to whether the name is old or new.

1. Staunton dome (old)
2. Anderson anticline (new)
3. Burton anticline (new)
- 3A. Carlinville North dome (new)
4. Carlinville anticline (old)
- 4A. Carlinville dome (old)
5. Grimes anticline (new)
6. Hickory Grove anticline (new)
- 6A. Macoupin dome (old)
- 6B. Spanish Needle Creek dome (old)
7. Lowder anticline (new)

8. Modesto anticline (new)
9. Nilwood anticline (new)
10. Plainview syncline (new)
11. Shipman anticline (new)
12. South Litchfield dome (old)
13. Thayer dome (new)
14. Waverly anticline (new)
15. Weyen anticlinal nose (new)

The discussion of oil possibilities in T. 7 S., Rs. 6, 7, 8, and 9 W., is given in Circular 71, pp. 9 and 12, and is quoted below. The present map omits the small closing contour formerly shown in sec. 14, T. 7 N., R. 8 W.; other slight shifting of contours is too minor to warrant discussion.

"(1) Staunton dome, sec. 14 and adjacent secs.,
T. 7 N., R. 7 W., Macoupin County.

"The Staunton dome is described in: Bulletin 28, p. 41; Mining Investigations Bulletin 11, p. 37; and Bulletin 44A. A gas field which produced for three years from 1916-1919 was located on this dome. Production was from Pennsylvanian sandstone, and the average depth to top of pay in 18 gas wells was 461 feet. Average thickness of pay was 30 feet. The deepest well on the structure, drilled in 1931, had a depth of 2371 feet and tested the 'Trenton' limestone.

"The fact that mine levels were used in the **** structural interpretation insures a greater degree of accuracy than was possible in previous maps.

"The dry hole to the 'Trenton' has undoubtedly discouraged further test-drilling for oil or gas on the Staunton dome."

2. Anderson anticline. - The Anderson anticline, named from Anderson School in the SE corner sec. 2, T. 10 N., R. 7 W., is a mild warping at Modesto and terminates about three miles south of South Standard. It has not been tested to the lower Pennsylvanian, although several coal tests have been drilled on it. Drilling is not recommended because the structure has no closure.

3. Burton anticline. - The Burton anticline, named from the Burton School in the NW 1/4 sec. 34, T. 10 N., R. 7 W., is terminated at the west by the Carlinville North dome and extends eastward about five miles in an arc between the Anderson anticline and the Carlinville anticline.

Two wells in sec. 35 had gas shows, one (Macoupin County No. 77) had gas in shale and sand at 395-405 feet, and the other (Macoupin County No. 78) had a show in shale from 407-413 feet. The well in sec. 24 (Macoupin County No. 72) had a possible

show of gas below 547 feet and a very slight show of oil at 550 feet (total depth). Without known closure, further drilling along this anticline does not seem advisable.

3A. Carlinville North dome. - The Carlinville North dome, named for the Carlinville North pool, lies one mile northwest of Carlinville, occurring at and near the common corner of secs. 17, 18, 19, and 20, T. 10 N., R. 7 W.

Production has been obtained from the east flank of the dome in secs. 17 and 20. Oil, with which some gas occurs, is obtained from the lower Pennsylvanian at about 500 feet. The well in sec. 17 (Macoupin County No. 71) was drilled in 1913, and at least one well was drilled in 1921. The recent drilling began late in 1941, and there were three producing and eight abandoned oil wells in July 1942. This pool was formerly included with the Carlinville pool, according to Blatchley (Bull. 28, p. 11), who reported one well to have made 100 barrels daily.

4. Carlinville anticline. - The Carlinville anticline extends from northwest of Chesterfield eastward to southeast of Carlinville, then swings north to about four miles south of South Standard. In secs. 11, 14, 10, and 15, T. 9 N., R. 7 W., is a fairly sharp nose without known reversal of dip. A coal test (Macoupin County No. 296) did not reach the lower Pennsylvanian. The broad "high" at the east end of the Carlinville anticline in and about secs. 32 and 33, T. 10 N., R. 6 W., secs. 4 and 5, T. 9 N., R. 6 W., has not been tested by any well reaching the lower Pennsylvanian. Doming or reversals of dip are not known but may occur. This is a possible producing area, but not enough data are available to suggest a location.

4A. Carlinville dome. - The Carlinville structure was first mentioned as an anticline in 1910 by Blatchley (Bull. 16, p. 161) who discussed the finding of gas in the Carlinville field. Kay reviewed the Carlinville field in 1911 and presented a partial structure map (Bull. 20, pl. VIII). The Carlinville field was mentioned by Lee (U.S.G.S. Gillespie-Mt. Olive folio) as being on a dome, here designated the Carlinville dome. It has long been known to have about 20 feet of closure.

The most comprehensive discussion of the Carlinville pool to date is in Bulletin 31, pp. 91-99. Drift gas, discovered in the "early sixties," led to the discovery of gas in the lower Pennsylvanian strata in 1909 and oil in the lower Pennsylvanian in 1911. The gas had an initial pressure of 135 pounds; the oil had a specific gravity of 28.6°B. Although the pool was abandoned in 1925, it is now producing again from three wells and a fourth well is being cleaned out.

5. Grimes anticline. - The Grimes anticline, named from Grimes School in the NW corner sec. 11, T. 8 N., R. 7 W., extends in an arc from Shipman to just north of Gillespie. Although gas was obtained at Shipman in 1907, it was not until January of 1942 that further drilling was done. The first well of the three (as of

July 1942) in sec. 18, T. 8 N., R. 8 W., made 1 1/2 million cubic feet per day from the lower Pennsylvanian, the top of which lies at 365 feet below the surface.

Lee mentioned a possible dome (Bull. 31, p. 105) in the N 1/2 sec. 10, T. 8 N., R. 8 W., but the structure is not indicated by the present map. He also suggested that a slight upward warping may exist somewhere near the corner of secs. 3 and 4, T. 8 N., R. 7 W., and 33 and 34, T. 9 N., R. 7 W. (Bull. 31, p. 105) but it is not supported by this map.

The Holmes - Watkins well in sec. 23, T. 8 N., R. 9 W., had two shows of oil from 430-433 feet and 450-455 feet in the lower Mississippian, topped at 418 feet. The W. R. Holmes and Graham - Kulenkamp No. 1, NW 1/4 SE 1/4 SW 1/4 sec. 7, T. 8 N., R. 8 W., made 150,000 cubic feet of gas from the lower Pennsylvanian, which was topped at 314 feet.

Without indication of closure, further drilling is not warranted in this region.

6. Hickory Grove anticline. - The general anticline on which the Spanish Needle Creek and the Macoupin domes lie is called the Hickory Grove anticline, named from Hickory Grove School in the center E 1/2 sec. 28, T. 9 N., R. 6 W. It extends east-south-eastward from the common corner of Greene, Jersey, and Macoupin counties at least to the center of the east edge of T. 9 N., R. 6 W. The west end is more like an anticlinal nose, but there is a sharpening of the structure in secs. 21, 26, and 27, T. 9 N., R. 8 W., which has been partially tested; this is discussed below under the name Macoupin dome.

Eastward from the Spanish Needle Creek dome the Hickory Grove anticline becomes broader. The well in the SW corner of sec. 23, T. 9 N., R. 7 W. (Macoupin County No. 148) had a small show of gas at 474 feet (lower Pennsylvanian?) and gas shows at 508 feet (lower Pennsylvanian) and 644 feet (Lower Mississippian limestone, top 628 feet). Of the two wells in sec. 33, T. 9 N., R. 6 W., one (Macoupin County No. 131) had a slight show of oil from 115-127 feet (lower Pennsylvanian); the other (Macoupin County No. 150) had a good show of gas at 596-605 feet, a show of oil at 605-610 feet, and shows of gas and oil at 610-615 feet, all in the lower Pennsylvanian. It is possible that a well drilled up-dip in the E 1/2 sec. 29, or in the W 1/2 sec. 28, T. 9 N., R. 6 W., would be more favorably located for obtaining commercial production of gas and oil. A reasonable location for a test well is in the center of the NW 1/4 sec. 28, T. 9 N., R. 6 W. The lower Pennsylvanian, which includes the most favorable possible producing horizon, lies at about 580 feet.

6A. Macoupin dome. - The Macoupin dome has been described (Bull. 31, p. 104). It lies mainly in secs. 26 and 27, T. 9 N., R. 8 W., and is elongated east-west. The area including this dome was mentioned in the Gillespie-Mt. Olive folio, p. 9, as probably a region of warped strata. The Impromptu - Rinaker and

Benson well in sec. 27 (Macoupin County No. 87) had a show of gas at from 425-430 feet in the lower Pennsylvanian. The Ohio - Mutzbauer well No. 1 (Macoupin County No. 84) in sec. 23 had a light showing of oil at 343 feet and a gas show at 322 feet, both in the Pennsylvanian. (This well is mentioned in Bull. 31, p. 104, as being one mile northwest of the bridge in the NE corner sec. 27, which would place it in sec. 22; apparently northeast was meant instead of northwest). The Macoupin dome is not yet adequately tested. For further testing, the S 1/2 NW 1/4 sec. 26, T. 9 N., R. 8 W., would be the most reasonable location because it would be higher than the other well (Macoupin County No. 87) to the west which gave a show of gas. The lower Pennsylvanian there lies at about 400 feet. Present studies indicate that the dome has about ten feet of closure on the Herrin (No. 6) coal.

6B. Spanish Needle Creek dome. - The Spanish Needle Creek dome as originally described (Bull. 31, p. 102), was located in the NE 1/4 SW 1/4 sec. 21, T. 9 N., R. 7 W., but more recent data indicate that the crest lies in the SE 1/4 NW 1/4 sec. 21. The dome was mentioned in the Gillespie - Mt. Olive folio, p. 9. A subordinate "high" in sec. 28 is not substantiated by present data; also the axis of the structure trends nearly east-west instead of north-west-southeast.

Production on the Spanish Needle Creek dome was from the lower Pennsylvanian sandstones. The deepest well (Macoupin County No. 281) on the dome is the W. E. Schmidt et al (Hercules Oil and Gas) - Miller No. 1, which was dry and abandoned at a total depth of 545 feet but was still in the Pennsylvanian. The field was discovered in 1915 (the same year its structure was pointed out by Lee) and was abandoned in 1934. One well is reported to have made 3 million cubic feet of gas per day. (Gillespie-Mt. Olive folio, p. 13).

No deep test has been made on the dome. There are no Chester strata within the area of the Spanish Needle Creek dome, hence possible deeper production would have to come from rocks of early Mississippian age or older. Probably the dome is too small to justify such deep drilling.

7. Lowder anticline. - The Lowder anticline, named for the town, lies between the Waverly anticline and the Modesto anticline. It is in line with the Thayer dome and appears to be a branch of the Waverly anticline. No tests have been made on the Lowder anticline. Until evidence of doming can be substantiated, further drilling does not appear advisable.

8. Modesto anticline. - The Modesto anticline, named for the town, extends from the northwest corner of Macoupin County, through Modesto and then eastward to the northeast corner of the county.

There has been only one important well drilled on this anticline, and that is the O. G. Hayes - Alderson No. 1 (Macoupin

County No. 305) in sec. 17, T. 12 N., R. 7 W. The well ended in the St. Louis limestone, topped at 563 feet, but no shows of oil or gas were reported.

There is no present indication of closure on the anticline, hence prospecting is not recommended.

9. Nilwood anticline. - The Nilwood anticline, named for the town, extends from about two miles northwest of Nilwood in an arc to the south, to about two miles south-southeast of South Standard. The south end of the Nilwood anticline is in line with the trend of the Carlinville anticline.

The coal test in sec. 29, T. 11 N., R. 6 W., did not test the lower Pennsylvanian sandstones. In secs. 4 and 9, T. 10 N., R. 6 W., several coal tests have been drilled but only one (Macoupin County No. 49) tested the lower Pennsylvanian sandstones. There were no shows reported, and the well was completed in the St. Louis limestone at 695 feet.

To the east of the latter region, two wells had shows of oil, one (Macoupin County No. 442) in sec. 35, T. 11 N., R. 6 W., and the other (Macoupin County No. 443) in sec. 2, T. 10 N., R. 6 W., which produced a little oil but is temporarily abandoned.

There is no known reversal of dip on the Nilwood anticline, but additional data may prove the presence of one or more domes. The presence of anticlinal noses along the east margin of the structure might be an indication of the presence of domes up-dip. Recommendations for drilling cannot be made.

10. Plainview syncline. - The Plainview syncline, named for the town, extends completely across Macoupin County between the Hickory Grove anticline and the Grimes anticline and has an east-west trend, plunging eastward. It has a closed low spot in sec. 34, T. 8 N., R. 9 W.

The Plainview gas field lies in sec. 35, immediately east of the closed low. Production is from the lower Pennsylvanian sandstones. One well made 1 1/2 million cubic feet per day.

No closure is known, hence further drilling is not warranted at present.

11. Shipman anticline. - The Shipman anticline, named for the town, extends from Shipman to Mount Olive. At the west end of the anticline in sec. 25, T. 8 N., R. 9 W., is located the well (Macoupin County No. 175) which was reported as having had a show of gas (Bull. 16, p. 176). The gas was encountered at 418 feet in the Lower Mississippian.

In secs. 15 and 22, T. 8 N., R. 8 W., is a small gas field which produced from the lower Pennsylvanian. Although not

specifically named, it is sometimes called the South Plainview field. Two wells entered the Lower Mississippian but no deep tests were drilled, the deepest being 550 feet.

The Gillespie - Bonld gas field is in secs. 29 and 30, T. 8 N., R. 6 W. Production was from the lower Pennsylvanian sandstones. The number of wells drilled is not known, but there were reported to be at least three producing gas wells and one dry hole. The production of one well (Macoupin County No. 143) was reported to be 5 million cubic feet of dry gas per day from 536 feet (lower Pennsylvanian) at 155 pounds pressure. The field had been partially drilled by 1923 and was abandoned in 1935. The structure has been indicated in Bulletin 31, pl. II, on the Gillespie quadrangle geologic map, and on page 9 in the Gillespie-Mt. Olive folio.

In secs. 20, 29, 32, 33, and 34, T. 8 N., R. 6 W., there are five small domes. The one of these which is mostly in sec. 20, has been tested (Macoupin County No. 239) by a gas well completed in 1931, production coming from the lower Pennsylvanian at 565-575 feet. The field was not named because of its small size. The amount of gas obtained is not known.

Of the other domes, the east one (in secs. 33 and 34) has had a coal test (Macoupin County No. 148) drilled on it which did not reach the lower Pennsylvanian, having only gone to 361 feet. Another very small dome in sec. 23, T. 8 N., R. 7 W., has had a nearby test (Macoupin County No. 290) which had a show of oil at 595 feet in the lower Pennsylvanian. These low domes may contain gas in the lower Pennsylvanian, although it is impossible to know whether or not the gas would be in commercial quantities. The fact that production was obtained in the Gillespie - Bonld gas field nearby is somewhat encouraging. If the small domes are drilled, the most favorable locations are the NW 1/4 SE 1/4 SE 1/4 SE 1/4 sec. 23, T. 8 N., R. 6 W., the SE 1/4 NW 1/4 NE 1/4 sec. 32, the center of the E 1/2 sec. 32, the NE 1/4 SW 1/4 NE 1/4 sec. 33, and the center of the S line sec. 32, all in T. 8 N., R. 6 W. The lower Pennsylvanian sandstones, which would be the most probable producing formations, lie about 250 feet below coal No. 6, or about 660 feet deep in secs. 32 and 33.

12. South Litchfield dome. - The South Litchfield dome was described (Bull. 31, p. 103) as occurring partly in sec. 25, T. 8 N., R. 6 W., but the west portion which should occur on this map does not appear from the data at hand. The coal test (Macoupin County No. 140) in sec. 25 went to 444 feet and reported no shows of oil or gas.

13. Thayer dome. - The Thayer dome, named for the town, occupies most of sec. 2, parts of secs. 1 and 3, T. 12 N., R. 6 W., and parts of secs. 34 and 35, T. 13 N., R. 6 W. It is probably an extension of the trend of the Lowder anticline.

The Thayer dome has not been tested, as the coal borings on it are all shallow holes. The structural conditions are similar

to those in the Staunton gas field farther south, but the Chester series is absent on the Thayer dome. The chances of obtaining production from the lower Pennsylvanian seem good. The first test well should be drilled in the center of the SE 1/4 NW 1/4 sec. 2, T. 12 N., R. 6 W., in order to place it at the highest point of the structure. The top of the lower Pennsylvanian is probably about 200 feet below coal No. 6, or about 580 feet deep.

A mile and a half west of the Thayer dome is a structural depression which underlies the north part of Virden.

14. Waverly anticline. - The Waverly anticline, named for the town, extends from Waverly at least to Auburn. Near Waverly, in sec. 2, T. 13 N., R. 8 W., a well (Morgan County No. 18) had a gas show from 324-347 feet in the Pennsylvanian and good shows of oil at 800 feet, and from 912-965 feet in the Keokuk-Burlington. Other than the well (Sangamon County No. 20) in sec. 7, T. 13 N., R. 7 W., which did not report any shows, the anticline has not been tested. A sharpening of the structure at Auburn is the next most significant structural feature on the anticline. Examples of closure are not known, hence recommendations for drilling cannot be made at this time.

15. Weyen anticlinal nose. - The Weyen anticlinal nose, named for the old gas production on the Weyen farm, lies chiefly in secs. 8 and 9, T. 8 N., R. 6 W., between the Hickory Grove anticline and the Grimes anticline. It is somewhat in line with the Grimes anticline and may be structurally related to it. The structure is small and appears to have been adequately drilled.

The Gillespie - Weyen oil pool was drilled in secs. 4, 8, and 9, sometime between 1910 and 1915 and was productive at least during 1930-1936, after which time it was abandoned until August 1941. There were seven producing wells and others were scheduled to be cleaned out in July 1942. Only 12 wells are known, although it is said that there were once about 22 wells in the pool. Eleven of them were producers and two of the producers were abandoned shortly after completion, leaving nine commercial wells in the original pool. The deepest well of which there is record is the Duncan Bros. - J. Weyen well No. 9 in the SW 1/4 NE 1/4 NE 1/4 sec. 8, which was drilled to 2560 feet and ended in the "Trenton" limestone, which was topped at 2198 feet. Production is from the lower Pennsylvanian sandstones.

Unnamed anticlines, anticlinal noses, and domes

1. Secs. 8, 17, 16, 21, 22, and 15, T. 11 N., R. 7 W. A southeastward-plunging anticlinal nose.

2. Secs. 16, 15, 23, and 24, T. 14 N., R. 7 W., and secs. 19, 20, 25, 26, 27, 28, and 36, T. 14 N., R. 6 W. An east-southeastward-plunging anticline.

3. Secs. 13, 14, 15, and 16, T. 13 N., R. 9 W., and sec. 18, T. 13 N., R. 8 W. An eastward-plunging nose. This was tested by a well (Morgan County No. 21) which had shows of gas from 695-700 feet and at 735 feet in the Lower Mississippian and a slight oil show in Osage siltstone between 885 and 895 feet. It ended in the Devonian-Silurian limestones at 1150 feet.

4. Secs. 5, 6, 7, and 8, T. 14 N., R. 8 W. A broad anticlinal nose plunging southeastward has been tested by one well (Morgan County No. 1), which reported a show of oil from 204-208 feet in the Pennsylvanian. Another well (Morgan County No. 18) in sec. 2, T. 13 N., R. 8 W., had a gas show from 324 to 347 feet in the Pennsylvanian and good oil shows at 800 feet and from 912 to 965 feet, both in the Lower Mississippian.

5. Secs. 33 and 34, T. 14 N., R. 8 W. A small dome with very small closure. This was tested (Morgan County No. 2) to 1680 feet and had a show of gas from 800 to 812 feet in the Lower Mississippian, a show of oil at 945 feet in the Lower Mississippian, and a show of oil between 1590 and 1680 feet in the "Trenton" limestone. A well (Morgan County No. 20) in sec. 5, T. 13 N., R. 8 W., had reported shows of oil at 735 feet and 885 feet in the Burlington-Keokuk limestones. The possibilities of this small dome do not seem very favorable.

6. Secs. 30, 31, and 32, T. 10 N., R. 9 W. This small eastward-plunging nose has been tested by a well (Macoupin County No. 466) which had an oil show from 227 to 242 feet, probably in the Pennsylvanian. It presumably entered the "Trenton" limestone, as it went to a depth of 1540 feet.

The well (Jersey County No. 14) in sec. 32, T. 7 N., R. 11 W., had a reported oil show in the lower Jefferson City dolomite at 1770 feet. The well (Greene County No. 48) in sec. 19, T. 9 N., R. 11 W., had an oil show at 850 feet in the "Trenton" limestone. Neither of these wells is within the area of outcrop of coal No. 6, hence structural data for this map are not available at their localities.

Table 3. - Selected List of Deep Drillings and Wells with Reported Shows of Oil or Gas

Driller, farm, well number, year drilled	1/4 Sec.	Sec.	T. R.	Location	County number on map	Located on structure number**	Sur-face eleva-tion, T.D.	Depth to top Lower Miss.	Depth to top Dev.- Sil.	Depth to top of "Trenton"
<u>Greene County</u>										
Jacob G. Pope	SE NW	19	9N	11W	48	--	1187			
Geo. Furruss	NW SW NE	15	10N	11W	45	--	745	210	740	
F. A. Johnson 1 (1939)	SW SE SE	16	11N	10W	10	--	1586	242	874	1260
J. S. Hopkins	SW cor. NE	16	12N	11W	2	--	352	120		
<u>Jersey County</u>										
E. C. Kuhse - E. A. Heiderman (1934)	SE NE NW	24	7N	10W	16	--	402	250?		
Richard Gilham	SE cor. SW	28	7N	11W	11	--	1800		600?	
A. W. Gerson - Knight 1 (1939)	SW NW NW	32	7N	11W	14	--	2235	62	495	805
*Winter Bros. et al. - Mary McDow 1 (1929)	SW NE NW	32	7N	11W	15	--	887	62	500	809
E. M. Gould & Son - Grover Pearce 1 (1939)	SE SW NE	27	8N	10W	5	--	1805	180	900	1300
Jerseyville City Well 2	NW cor.	28	8N	11W	8	--	1542	100	575	975
E. C. Kuhse - Chapman 1 (1938)	SE SW SE	27	9N	10W	1	--	755	220		
<u>Macoupin County</u>										
Madison Coal Corp. - Mine #5 (1924)	CN NE NW	1	7N	6W	358	--	750	724		
Duncan Bros. - Woolridge 4 (1931)	SE NW NE	23	7N	7W	293	1	2307	675	1485	2113
Dortomedge Oil Co. - Hunsinger 1 (1941)	SW NW NE	25	7N	7W		--	652	635		
Miller Oil Co. - D. Funderburg 1	NE NW NE	36	7N	7W	216	--	671	610		
Duncan Bros. - J. Weyen 9 (1921)	SW NE NE	8	8N	6W	286	4	2560	700	1575	2198
Hercules Oil & Gas - Lonzeratti 1 (1931)	SW SE SW	20	8N	6W	289	12	575			
Coag Oil & Gas Co. - P. Fronzol 1 (1923)	SW NW NE	29	8N	6W	143	12	536			
Superior Ooal Corp. - Fricke 21 (1913)	NW SW NW	34	8N	6W	148	12	647.0			
Madison Coal Corp. - Mine #5 (1923)	SE NW NE	35	8N	6W	149	--	360			
Madison Coal Corp. - Mine #5 (1923)	NE SE SE	36	8N	6W	324	--	2000	727	1699	
Hercules Oil & Gas Co. - Weyen 1 (1931)	SW SE SE	23	8N	7W	290	12	1000	776		
							625	610		

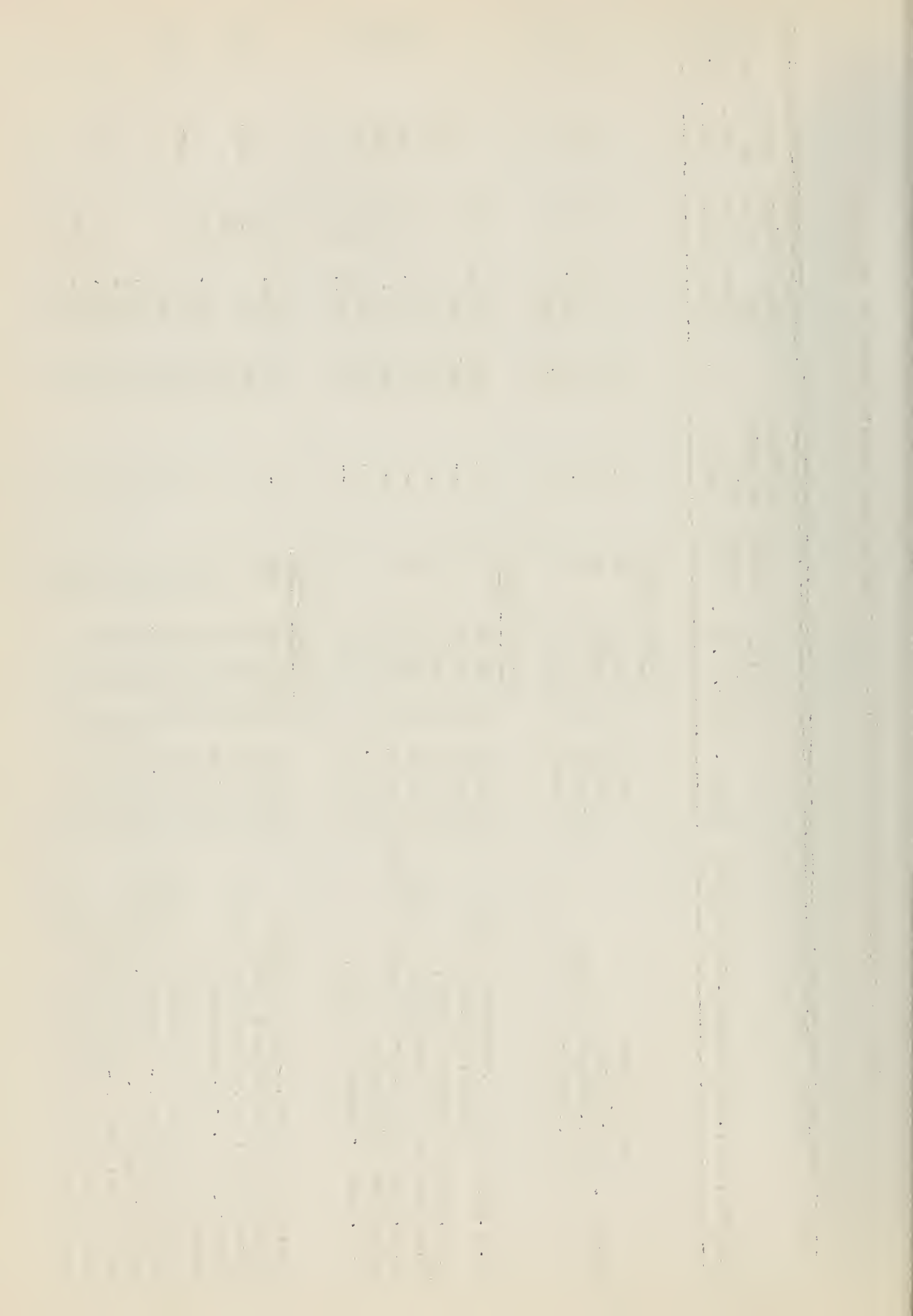


Table 3. - (Continued)

Driller, farm, well number, year drilled	1/4 Sec.	Location		County number	Located on structure number**	T.D.	Sur	Depth	Depth	Depth to top of "Trenton"
		Sec.	T. R.				face elevation	to top of Lower Miss. Sil.	to top of Dev. Sil.	
Macoupin County (Cont'd.)										
P. L. Miller - Crabtree 1 (1940)	SE SE SE	1	10N 6W	441	--	720	631.5			
Adams & Lagers - J. E. Cole 1 (1940)	SE NE SW	2	10N 6W	443	--	555	618.4			
J. B. Cole A-11	NE cor. NE	9	10N 6W	49	8	695	597.5	653		
Miller & Falder - Wm. Miller 1 (1919)	SE SE NW	12	10N 7W	67	15	580	612.6			
Ohio Oil Co. - A. Broun 2 (1913)	SE SE SW	17	10N 7W	71	3A	482	627.5			
F. Mudgett - Goebelt 7 (1941)	SE NE SW	20	10N 7W	332	3A	485	623.3			
Impromptu Oil & Gas - Barnstable 1	N NE SE	24	10N 7W	72	3	550	575			
Impromptu Oil & Gas - Walker 2 (1909)	NE SE NW	35	10N 7W	78	3	535	561.1	537?		
A. M. Crawford	NW SE SE	14	10N 8W	353	3	496	618.8			
W. G. Diller et al - Keelo 1 (1939)	SE SE NE	32	10N 9W	466	--	1540		242?	998?	
A. W. Crawford's Options 8 (1902)	SE SE NW	29	11N 6W	39	8	328	644.2			
Adams & Lagers - J. A. Cole 1 (1940)	SW SE SE	35	11N 6W	442	--	633	629.2			
Adams & Lagers - Bristow 1 (1941)	SE SE NE	7	11N 7W	372	15	1487		565	1425	
Phillips Petroleum Co. - Giller 1 (1938)	N. NE N	15	11N 8W	342	--	1828		472	1237	
Ohio Consolidated Oil Co. - Arnett Heirs (1911)	N. NW SE	32	11N 8W	21	--	724	588.0	395		
Hettick Oil Development Ass'n. - C. P. Starkweather 1 (1936)	NW SE	36	11N 9W	440	--	1076	535	297	1001?	
A. W. Crawford's Option 2 (1903)	N 1/2 S. NE	31	12N 6W	9	--	505	634.1			
O. G. Hayes - Alderson 1 (1941)	SE SE NE	17	12N 7W	305	7	578	668	540		
Morgan County										
International Oil & Gas Co. - J. W. Tomb 1	SE SW NE	2	13N 8W	18	--	965	689.7	565		
Dr. Hughes - Proctor 1 (1909)	NW NE	5	13N 8W	20	--	1030		500		
Werner Drilling Co. - W. H. Diller 1 (1939)	SE NW	18	13N 8W	21	--	1150	666.2	400	1110	
Waverly Oil & Gas Co. - Medivett 2 (1917)	NE SE	22	13N 8W	23	--	1202	593.9	500	1010	
Magnolia Petroleum Co. - J. B. Keplinger 1 (1941)	SW SE	28	13N 8W	38	--	1754	634	385	1045	1585

Table 3. - (Concluded)

Driller, farm, well number, year drilled	$\frac{1}{4}$ Sec.	Location Sec. T. R.	County number on map	Located on struc- ture number**	Sur- face eleva- tion	Depth to top lower Miss.	Depth to top Dev.- Sil.	Depth to top of "Trenton"
Morgan County (Cont'd.)								
C. T. Hunt - E. F. Cuddy 2 (1940)	NE NW NE	2 13N 10W	11	--	699.0	285	1012	1380
Hills & McConnell - J. W. Sharp 1 (1942)	NE NE SW	25 13N 10W		--		195	307	
P. C. Irvin - Clark 1 (1930)	SW SE NE	11 13N 11W	10	--	677.9	235		
P. C. Irvin et al - J. Lukeman 1 (1930)	SW SW	7 14N 8W	1	--	708.0			
Waverly Oil Syndicate, Ltd. - Dora Hubbs 1 (1938)	SE NE SE	33 14N 8W	2	--	676.3	435	1160	1346
Shippey, Madden & Parish - C. Davis 1 (1929)	SE SE NE	4 14N 9W	3	--	666.1	340		
Allan J. Coe - Robinson 1 (1942)	SE SW NW	29 14N 10W		--		250?	937	
Sangamon County								
Waverly Coal Mining & Prosp. Co. (1904)	NE NE SW	7 13N 7W	20	14	625.7			
Scott County								
Manchester Mining Co.	21 or 22	13N 11W	1	--	690 $\frac{1}{2}$	212		

* Wells omitted from index map.

** The numbers refer to the list of structures near the beginning of the text on oil and gas possibilities.

Summary of Formations Encountered in Deep Wells

Macoupin County No. 145
 Madison Coal Corporation - Diamond Drill Hole No. 15,
 SW 1/4 NW 1/4 NE 1/4 sec. 35, T. 8 N., R. 6 W.
 Elevation 678 feet.

<u>Formation</u>	<u>Thickness</u>	<u>Depth to bottom</u>	<u>Altitude of top</u>
Pleistocene system	113	113	+678
Pennsylvanian system	589	702	+565
Top coal No. 6 at 408			+270
Mississippian system			
Chester series	25	727	- 24
Iowa series			
Ste. Genevieve formation	58	785	- 49
St. Louis limestone	263	1048	-107
Salem limestone	139	1187	-370
Warsaw formation	125	1312	-509
Burlington-Keokuk limestones	145	1457	-634
Fern Glen formation	105	1562	-779
Chouteau limestone	24	1586	-884
Hannibal shale	76	1662	-908
Louisiana limestone	8	1670	-984
Grassy Creek shale	30	1700	-992
Devonian system			
Cedar Valley, Wapsipinicon, and Bailey (?) limestones	136	1836	-1022
Silurian system			
Niagaran dolomite	164	2000	-1158

Macoupin County No. 440
 Hettick Oil Development Association - C. P. Starkweather
 No. 1, W 1/2 NW 1/4 SW 1/4 sec. 36, T. 11 N., R. 9 W.
 Elevation 535 feet.

(Pleistocene system			
(Pennsylvanian system	297	297	+535
Mississippian system			
Iowa series			
St. Louis limestone	43	340	+238
Salem limestone	90	430	+195
Warsaw shale	109	539	+105
Keokuk limestone	77	616	- 4
Burlington limestone	114	730	- 81
Fern Glen formation	66	796	-195
Hannibal shale	115	911	-261
Louisiana limestone	4	915	-376
Grassy Creek shale	86	1001	-380
Devonian system			
Cedar Valley-Wapsipinicon lime- stones	75	1076	-466

Macoupin County No. 387
 Ohio Oil Co. - G. Groves, NE 1/4 SE 1/4 NW 1/4, sec. 15,
 T. 7 N., R. 7 W. Elevation 574 feet.

	<u>Thickness</u>	<u>Depth to bottom</u>	<u>Altitude of top</u>
Pleistocene system	15	15	+574
Pennsylvanian system	495	510	+559
Top of coal No. 6 at 242			
Mississippian system			
Chester series	90	600	+ 64
Iowa series			
Ste. Genevieve, St. Louis, and Salem limestones	300	900	- 26
Warsaw formation	115	1015	-326
Burlington and Keokuk limestones	205	1220	-441
Fern Glen formation	88	1308	-646
Chouteau limestone	27	1335	-734
Hannibal shale	65	1400	-761
Grassy Creek shale	25	1425	-826
Devonian - Silurian systems			
"Sand"	25	1450	-851
"Lime"	50	1500	-876

Macoupin County No. 463
 O. Z. Smith et al - Klein No. 1, NW 1/4 NW 1/4
 SE 1/4 sec. 7, T. 9 N., R. 7 W. Elevation
 542 feet.

Pleistocene system	30	30	+542
Pennsylvanian system	463	493	+512
Top of coal No. 6 at 283			+259
Top of lower Pennsylvanian sandstone at 353			+189
Mississippian system			
Iowa series			
Ste. Genevieve, St. Louis, and Salem limestones	282	775	+ 49
Warsaw formation	100	875	-233
Keokuk, Burlington, and Fern Glen limestones	258	1133	-333
Chouteau limestone	21	1154	-591
Kinderhook shales	142	1296	-612
Devonian system			
Cedar Valley and Wapsipinicon limestones	84	1380	-754

Macoupin County No. 372.

Adams and Lagers - A. Bristow No. 1, SE 1/4 SE 1/4
NE 1/4 sec. 7, T. 11 N., R. 7 W. Elevation
unknown.

	<u>Thickness</u>	<u>Depth to bottom</u>	<u>Altitude of top</u>
Pleistocene system) 565	565	
Pennsylvanian system			
Mississippian system			
Iowa series			
Ste. Genevieve limestone	10	575	
St. Louis and Salem limestones	285	680	
Warsaw shale	135	995	
Burlington and Keokuk lime- stones	230	1225	
Hannibal shale	100	1325	
Grassy Creek shale	100	1425	
Devonian system			
Cedar Valley and Wapsipinicon limestones	62	1487	

Morgan County No. 21

Werner Drilling Company - W. H. Diller No. 1, W 1/2
SW 1/4 NW 1/4 sec. 18, T. 13 N., R. 8 W.
Elevation 666 feet.

Pleistocene system	60	60	+666
Pennsylvanian system	340	400	+606
Mississippian system			
Iowa series			
St. Louis limestone	30	430	+266
Salem limestone	160	590	+236
Warsaw formation	110	700	+ 76
Burlington and Keokuk limestones	185	885	- 34
Osage siltstone	13	898	-219
Hannibal shale	117	1015	-232
Grassy Creek shale	98	1113	-349
Devonian and Silurian systems			
Limestone and dolomite	40	1150	-447

Greene County No. 45
Geo. Burruss well in NW corner, SW 1/4 NE 1/4 sec. 15,
T. 10 N., R. 11 W. Elevation 630 feet..

	<u>Thickness</u>	<u>Depth to bottom</u>	<u>Altitude of top</u>
Pleistocene system	40	40	+630
Pennsylvanian system	170	210	+590
Top coal No. 2 at 155 feet			+475
Mississippian system			
Iowa series			
St. Louis limestone	10	220	+420
Salem limestone	80	300	+410
Warsaw formation	68	368	+330
Keokuk and Burlington limestones	232	600	+262
Kinderhook shales	140	740	+ 30
Devonian system			
"Sandstone"	5	745	-110

Jersey County No. 14
A. W. Gerson - Knight No. 1, SW 1/4 NW 1/4 NW 1/4
sec. 32, T. 7 N., R. 11 W. Elevation
655 feet.

Correlations to base of St. Peter sandstone by Illinois Geological Survey and below St. Peter sandstone by Missouri Geological Survey.

Pleistocene system	62	62	+655
Mississippian system			
Iowa series			
Salem limestone	10	72	+593
Warsaw formation	78	150	+583
Keokuk and Burlington limestones	200	350	+505
Fern Glen formation	55	405	+305
Chouteau limestone	35	440	+250
Hannibal shale	50	490	+215
Louisiana limestone	5	495	+165
Grassy Creek shale	5	500	+160
Devonian system			
Wapsipinicon formation	25	525	+155
Silurian system			
Dolomite	120	645	+130
Ordovician system			
Maquoketa formation	160	805	+ 10
Kimmswick limestone	100	905	-150
Decorah limestone	40	945	-250
Plattin limestone	160	1105	-290
Joachim dolomite	95	1200	-450
Glenwood-St. Peter sandstones	175	1375	-545
Powell dolomite	25	1400	-720
Cotter dolomite	150	1550	-745
Upper Jefferson City dolomite	70	1620	-895

(Continued on page 44)

Jersey County No. 14
 A. W. Gerson - Knight No. 1, SW 1/4 NW 1/4 NW 1/4
 sec. 32, T. 7.N., R. 11 W. Elevation
 655 feet.

	<u>Thickness</u>	<u>Depth to bottom</u>	<u>Altitude of top</u>
Continued)			
Lower Jefferson City dolomite	165	1785	-965
Roubidoux formation	165	1950	-1130
Upper Gasconade dolomite	30	1980	-1295
Lower Gasconade - Van Buren dolomites	210	2190	-1325
Gunter formation	40	2230	-1535
Sambrian system			
Eminence dolomite (?)	5	2235	-1575

Jersey County No. 5
 E. M. Gould & Son - G. Pearce No. 1, SE 1/4 SW 1/4 NE 1/4
 sec. 27, T. 8 N., R. 10 W. Elevation 593
 feet.

	<u>Thickness</u>	<u>Depth to bottom</u>	<u>Altitude of top</u>
This well reported a show of gas in the Silurian and oil shows in the Devonian, Kimmswick, either Plattin or Joachim, and Glenwood.			
Pleistocene system	60	60	+593
Pennsylvanian system	20	80	+533
Mississippian system			
Iowa series			
St. Louis limestone	235	315	+513
Salem limestone	90	405	+278
Warsaw formation	95	500	+188
Keokuk and Burlington limestones	220	720	+ 93
Fern Glen limestone	35	755	-127
Chouteau limestone	32	787	-162
Hannibal formation	83	870	-194
Louisiana limestone	13	883	-277
Grassy Creek shale	22	905	-290
Devonian system			
Cedar Valley limestone	20	925	-312
Wapsipinicon limestone and dolomite	25	950	-332
Silurian system			
Niagaran dolomite	188	1138	-357
Ordovician system			
Cincinnatian series			
Maquoketa shale	162	1300	-545

(Continued on page 45)

Jersey County No. 5
 E. M. Gould & Son - G. Pearce No. 1, SE 1/4 SW 1/4
 NE 1/4 sec. 27, T. 8 N., R. 10 W.
 Elevation 593 feet.

	<u>Thickness</u>	<u>Depth to bottom</u>	<u>Altitude of top</u>
(Continued)			
Mohawkian series			
Kimmswick limestone	100	1400	-707
Decorah limestone	20	1420	-807
Plattin limestone	185	1605	-827
Joachim limestone	65	1670	-1012
Glenwood formation	35	1705	-1077
Chazy series			
St. Peter sandstone	100	1805	-1112

ILLINOIS STATE GEOLOGICAL SURVEY
URBANA, ILLINOIS

TABULATED COAL DATA

FOR

MACOUPIN COUNTY, EASTERN GREENE AND
JERSEY, SOUTHEASTERN SCOTT, AND SOUTHERN
MORGAN AND SANGAMON COUNTIES

TO ACCOMPANY CIRCULAR NO. 88

MAY, 1942

EXPLANATION OF ABBREVIATIONS USED IN TABULATED DRILL RECORD DATA

Type of Hole:

- CH —Churn drill
- PT —Oil test by churn drill
- DD —Diamond drill
- RD —Rod drill
- TD —Rotary drill
- GW —Gas well
- WW —Water well

Logs available for
examination at the
offices of the Survey.

Combination symbols, replacing the second letter of the abbreviations above, have the following meanings:

- S —Skeleton log
- C —Thickness of coal confidential
- K —Entire log confidential
- N —No log in Survey files

- SH —Shaft mine
- SL —Slope mine
- SD —Drift mine
- ST —Strip mine

- SA —Abandoned mine
- OA —Abandoned strip mine
- OU —Outcrop information

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Section Plat

Location: Location in section by numbers and letters; see plat—above, left.

Surface Altitude is given in feet and tenths of feet: as "4326" means "top of hole is 432.6 feet above sea level." The *Level Method* for determining altitude of top of hole, shaft, etc., is as follows:

- B —Barometer
- C —Company information
- F —Field estimate using topographic map
- H —Hand level
- P —Plane table
- T —Topographic map estimate not in field
- Y —Wye level or transit

Total Depth of hole is given to nearest foot.

Quad. Number: Refers to number of quadrangle as given on Index Map (p. 40) in "Publications on the Geology, Mineral Resources and Mineral Industries of Illinois, Sept. 1, 1941." An asterisk (*) after number indicates the datum point is not shown on the structural contour map drawn on the Herrin (No. 6) coal.

Year Drilled: Last two figures only; as "26" means "1926."

Doubtful Information: A notation here indicates that, although information is available, the accuracy of some part of the data is in doubt. The nature of the doubt is shown by number, as follows:

2. Correlation of coal bed
3. Exact location
4. Surface altitude
5. Both correlation and location
6. Both correlation and altitude
7. Both location and altitude
8. Depth to coal bed
9. Correlation, location, and altitude

Coal No. 6 and No. 5: *Depth* to coal is given to the top of bed, to the nearest foot. *Altitude* is given of the top of the coal bed in feet above sea level. A symbol "CR" following this figure indicates distance *below* sea level. *Thickness* is given in feet and inches. *O indicates coal bed is eroded or is absent at its usual horizon. Where no coal data are given, the information is unreliable or hole did not reach the coal bed. Where *altitude* is shown but not *depth*, the former is estimated from other data.

Coal No. 5*: Refers to coal No. 5 unless otherwise specified in the company name column.

Operators: CC signifies Coal Company; MC, Mining Company, etc. Names are slightly abbreviated when necessary.

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Greene County	1
Jersey County	5
Macoupin County	6
Morgan County	20
Sangamon County	22
Scott County	23

Location of Hole				County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Pt.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Pt.	Thickness In.
9 N	11 W	6	K 2	47	CS	GREENE														
9 N	11 W	19	E 5	48	CS	JAN 1 1942														
9 N	11 W	30	A 4	56	CN	EG PROCTOR		4930 H	1180	193 *										
9 N	11 W	31	H 8	50	CS	EG PROCTOR		5830 H	1187	198										
9 N	11 W	32		51	WW	J E PROCTOR		5530 T	1250	198 *										
10 N	10 W	3	A 6	28	WW	KANE SCHL		5331 C	1300	198										
10 N	10 W	3	A 7	26	WW	KUHSE E		5330 C	1338	192 *	35									
10 N	10 W	3	A 7	27	WW	KUHSE E		5326 C	40	192 *	35									
10 N	10 W	3	A 7	25	WW	KUHSE E CWC		5350 T	55	192 *	35									
10 N	10 W	3	A 8	29	WW	THORPE		5340 T	84	192 *	35									
10 N	10 W	3		30	WW	KUHSE E		5312 C	50	192 *	35									
10 N	10 W	3	E 8	30	WW	KUHSE E		5300 T	30	192 *	35									
10 N	10 W	4	D 1	33	WW	KUHSE E		5350 T	35	192 *	35									
10 N	10 W	4	D 1	34	WW	KUHSE E		5500 T	34	192 *	35									
10 N	10 W	4	E 1	31	WW	KUHSE E		5500 T	38	192 *	35									
10 N	10 W	4	E 1	32	WW	KUHSE E		5500 T	35	192 *	35									
10 N	10 W	5	G 1	37	WW	KUHSE E		5850 T	70	192	35									
10 N	10 W	5	G 2	35	WW	KUHSE E		5780 T	90	192	35									
10 N	10 W	5	G 4	36	WW	KUHSE E		5920 T	92	192	35									
10 N	10 W	7	B 7	67	SL	WALKER OS		5800 T	68	193	35									
10 N	10 W	15	A 6	39	WW	KUHSE E		5000 T	68	192	35									
10 N	10 W	15	A 7	38	WW	KUHSE E		5100 T	93	192	35									
10 N	10 W	20	C 3	40	WW	C WAGONER		5300 T	96	192	40									
10 N	10 W	30	G 2	41	WW	ERIE DRILL		5420 T	280	192										
10 N	10 W	33	H 1	42	WW	ASCHENBACH		5349 P	122	192										
10 N	10 W	33	H 1	42	WW	NO 2 COAL														
10 N	10 W	34	D 4	43	CH	W FILLAGER		5300 T	122	192										
10 N	11 W	4	F 4	86	PT	SCROGGIN		5850 T	1570	193	41									
10 N	11 W	15	A 3	46	WS	HAVERTICK		6050 T	300	193	39									
10 N	11 W	15	G 3	45	CH	G BURNS		6300 T	745	193										
11 N	10 W	16	A 2	10	PT	OWENS		6246 P	1586	192	39									
11 N	10 W	16	A 2	10	PT	NO 2 COAL														
11 N	10 W	27	A 6	11	SA	COLLINS		5720 T	65	192										
11 N	10 W	27	B 4	66	SA	GOBEL CM		5926 B		192										
11 N	10 W	27	B 4	13	SA	GRNF LD MC		6090 B	102	192										
11 N	10 W	27	B 6	88	SA	KINCD ARE		5723 P		192										
11 N	10 W	27	C 4	113	SA	POLI CC		5613 P		192										

(See cover page for explanation of all symbols)

GREENE

Location of Hole				County Number	Type of Hole	Operator	Op't's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.
11 N	10 W	27	C 6	12	SA	CMMUNITY	CC	5960	75	192			55	518			100	500		9 00
11 N	10 W	27	E 3	87	SA	GRNFLD	MC	5730		192			60	540						
11 N	10 W	28	C 2	76	SA	POLI	CC	6000	115	192 *										
11 N	10 W	28	C 2	76	SA	NO 4	COAL													
11 N	10 W	31	C 1	14	WW	KUHSE	E	5950	52	192	35									
11 N	10 W	31	D 1	15	WW	KUHSE	E	6000	67	192	35									
11 N	10 W	31	E 2	16	WW	KUHSE	E	6000	68	192	35									
11 N	10 W	31	E 3	17	WW	KUHSE	E	6000	54	192	35									
11 N	10 W	32	C 4	21	WW	KUHSE	E	5950	42	192	35									
11 N	10 W	32	C 5	20	WW	KUHSE	E	5950	65	192	35									
11 N	10 W	32	E 3	19	WW	KUHSE	E	5930	81	192	35									
11 N	10 W	32	G 5	18	WW	KUHSE	E	6030	36	192	35									
11 N	10 W	34	D 8	22	WW	THORPE	CWC	5500	50	192	35									
11 N	10 W	35	D 4	23	CS	T T	FORD.	6100	150	192										
11 N	10 W	36	A 3	24	CS	T T	FORD	5800	125	192										
11 N	11 W	29	B 7	7	WW	KUHSE	E	5400	105	193										
11 N	11 W	32	C 2	9	WW	PATTERSON		5650	65	193										
11 N	11 W	32	C 2	8	RD	SK ALXNDER		5650	21	193										
11 N	11 W	32	C 2	8	RD	NO 2	COAL													
12 N	10 W	15	D 8	94	SA	J HOPPER		5069		192										
12 N	10 W	15	D 8	95	SA	LOCAL	MINE	4999		192										
12 N	10 W	18	D 7	90	SA	FRD	STCKLS	5484		193										
12 N	10 W	18	D 7	90	SA	NO 2	COAL													
12 N	10 W	18	D 7	91	SD	FRD	STCKLS	5388		193										
12 N	10 W	18	D 7	91	SD	NO 2	COAL													
12 N	10 W	18	E 8	92	SD	FRD	STCKLS	5692		193										
12 N	10 W	18	E 8	92	SD	NO 2	COAL													
12 N	10 W	19	F 7	89	SA	L FERGUSON		5150		193										
12 N	10 W	19	F 7	89	SA	NO 2	COAL													
12 N	10 W	19	G 6	52	SA	L FERGUSON		5180		193										
12 N	10 W	19	G 6	52	SA	NO 2	COAL													
12 N	10 W	22	F 1	93	WW	RUSS	RMBRG	5330		192										
12 N	10 W	22	H 4	75	SA	A L BRYANT		5120		192										
12 N	10 W	23	F 8	11	WW	NO 2	COAL	5290	46	192										
12 N	10 W	23	F 8	11	WW	NO 2	COAL													
12 N	11 W	1		53	SA	E H WALTZ		5500		170 *										
12 N	11 W	1		53	SA	NO 2	COAL													
12 N	11 W	12	F 4	54	SL	J HOPPER		5500		170										
12 N	11 W	12	F 4	54	SL	NO 2	COAL													
12 N	11 W	16	E 4	22	CH	J S HOPKINS		6250	352	193										
12 N	11 W	16	E 4	22	CH	NO 2	COAL													
12 N	11 W	19	B 5	98	SA	LOCAL	MINE	6134		193										
12 N	11 W	19	B 5	98	SA	NO 4	COAL													

GREENE

(See cover page for explanation of all symbols.)

Location of Hole				County Number	Type of Hole	Operator	Op'r's Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5 *				
Township	Range	Section	Depth (Feet)										Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	
12 N	11 W	19	F 3	97	SA	LOCAL MINE		6302	P	193							50	580		
12 N	11 W	19	F 3	97	SA	NO 4 COAL	PERS	6216	P	193										
12 N	11 W	20	F 8	81	SH	D W TATE		6168	P	193										
12 N	11 W	20	G 1	99	SA	LOCAL MINE		5820	P	193 *										
12 N	11 W	21	F 7	96	SA	LOCAL MINE														
12 N	11 W	21	F 7	100	UU	NO 4 COAL		5746	P	193								575		
12 N	11 W	21	F 8	70	UU	HANOVER L S		5880	P	193										
12 N	11 W	21	G 8	3	RD	ILL GEOL S		6000	T	193 *	28						9	591	9	06
12 N	11 W	21	G 8	3	RD	NO 4 COAL											38	562	2	05
12 N	11 W	21	G 8	101	SA	LOCAL MINE		6152	P	193							10	524		
12 N	11 W	21	H 5	69	WN			6146	P	193								524		
12 N	11 W	22	G 1	57	SL	O CUMMINGS		5340	H	193								514		
12 N	11 W	22	G 1	57	SL	NO 2 COAL												515		
12 N	11 W	22	G 1	120	UU	NO 2 COAL		5240	H	193								519		
12 N	11 W	23	A 2	105	UU	NO 2 COAL		5140	H	193 *								517		
12 N	11 W	23	B 2	106	SA	LOCAL MINE		5140	H	193 *								515		
12 N	11 W	23	B 2	68	UU	NO 2 COAL		5150	H	193								518		
12 N	11 W	23	B 3	111	UU	NO 2 COAL		5190	H	193 *								514		
12 N	11 W	23	B 3	111	UU	NO 2 COAL		5170	H	193 *								517		
12 N	11 W	23	B 4	110	UU	NO 2 COAL		5170	H	193 *								517		
12 N	11 W	23	C 3	112	UU	NO 2 COAL		5150	H	193 *								515		
12 N	11 W	23	C 4	107	UU	NO 2 COAL		5180	H	193 *								518		
12 N	11 W	23	C 4	108	UU	NO 2 COAL		5180	H	193 *								518		
12 N	11 W	23	C 4	109	UU	NO 2 COAL		5140	H	193 *								514		
12 N	11 W	23	C 4	61	SD	W H ALLEN		5180	H	193 *								514		
12 N	11 W	23	C 4	61	SD	NO 2 COAL				193								518		
12 N	11 W	23	D 1	83	SA	E GOACHER		5800	T	193 *										
12 N	11 W	23	E 4	59	SL	T HOPPER		5800	T	193 *										
12 N	11 W	23	F 6	82	SA	L ELLIOT		5240	H	193										
12 N	11 W	23	F 6	82	SA	NO 2 COAL														
12 N	11 W	23	G 8	119	SD	OVERBY M		5330	H	193										
12 N	11 W	23	G 8	119	SD	NO 2 COAL														
12 N	11 W	23	H 7	118	UU	NO 2 COAL		5220	H	193										
12 N	11 W	23	H 8	60	SD	F SIMMONS		5270	H	193										
12 N	11 W	23	H 8	58	SL	GEOWARREL		5300	T	193 *										
12 N	11 W	23	H 8	58	SL	NO 2 COAL														
12 N	11 W	24	A 7	62	SD	SCHOFIELD		5250	T	193										
12 N	11 W	24	A 7	62	SD	NO 2 COAL														
12 N	11 W	24	A 7																	
12 N	11 W	25	G 7	63	SA	H HARB AUGH		5400	T	193										
12 N	11 W	28	G 7	104	SA	LOCAL MINE		5365	P	193										
12 N	11 W	28	G 8	102	SA	LOCAL MINE		5511	P	193										
12 N	11 W	28	H 8	103	SA	LOCAL MINE		5437	P	193										
12 N	11 W	28	H 8	116	SD	B F I SRAEL		5367	P	193										
12 N	11 W	28	H 8	116	SD	NO 2 COAL														
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	
12 N	11 W	28	H 8																	

Location of Hole				County Number	Type of Hole	Operator	Op.'s Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Publication Information	Coal No. 6			Coal No. 5 *		
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Pt. In.	Depth (Feet)	Altitude (Feet)	Thickness Pt. In.
12 N	11 W	29	A 2	85	SA	T K CONLEE		5600		193						38	522	2 06
12 N	11 W	29	A 2	85	SA	NO 2 COAL												
12 N	11 W	29	A 2	65	SA	BURL WYATT		5200		193						4	516	2 06
12 N	11 W	29	A 2	65	SA	NO 2 COAL												
12 N	11 W	29	E 7	64	SA	R WHITEHEAD		5618		193						30	532	
12 N	11 W	29	E 7	64	SA	NO 2 COAL												
12 N	11 W	29	C 4	55	SA	J H LITTLE		5524		193								
12 N	11 W	29	E 8	4	RD	WR GRFFTHS		5800	36	193						30	550	2 06
12 N	11 W	29	E 8	4	RD	NO 2 COAL											549	
12 N	11 W	30	D 4	117	OU	NO 2 COAL		5490		193								
12 N	11 W	30	E 5	5	RD	J GRFFTHS		5710	40	193						23	548	2 08
12 N	11 W	30	E 5	5	RD	NO 2 COAL												
12 N	11 W	30	F 5	115	SA	LOCAL MINE		5675		193						19	549	
12 N	11 W	30	F 5	115	SA	NO 2 COAL												
12 N	11 W	31	H 5	114	SA	LOCAL MINE		5857		193								
12 N	11 W	31	H 5	6	RD	G GRFFTHS		5850	23	193	33					20	565	2 06
12 N	11 W	31	H 5	6	RD	NO 2 COAL												
12 N	11 W	33	H 3	84	SA	MARSH WYATT		5500		193							550	2 06
12 N	11 W	33	H 3	84	SA	NO 2 COAL												
						142												

(See cover page for explanation of all symbols)

GREENE

Location of Hole			County Number	Type of Hole	Operator	Op't. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5 *		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. In.
JERSEY JAN 1 1942																	
7N	10W	7 D1	17	PS	EAGLETON TW		6150	810	198	40							
7N	10W	7 D1	17	PS	NO 2 COAL		5693		199								
7N	10W	9 A1	26	SA	LOCAL MINE		5428		199								
7N	10W	10 C6	24	SA	LOCAL MINE	1	5750		199								
7N	10W	10 G2	18	SA	WAGENBLAST												
7N	10W	10 G2	23	OU	NO 6 COAL		5600		199								
7N	10W	14 C1	19	SA	YOST BAKER	1	5945		199								
7N	10W	14 C2	25	SA	LOCAL MINE		5924		199								
7N	10W	15 F5	27	OU	NO 6 COAL		5659		199								
7N	10W	15 G7	21	SA	PHILLIPS M		5442		199								
7N	10W	16 H2	20	SA	GEISLER H		6000		199								
7N	10W	15 H6	28	OU	NO 4 BLK SH		5139		199								
7N	10W	23 F5	36	OU	NO 7 COAL		5739		199								
7N	10W	23 F5	35	OU	NO 6 COAL		5560		199								
7N	10W	23 F5	34	OU	BRERETN LS		5615		199								
7N	10W	23 G4	29	OA	CRNS BOTT		5551		199								
7N	10W	23 H3	31	SA	LOCAL MINE		5685		199								
7N	10W	23 H3	32	SA	LOCAL MINE		5740		199								
7N	10W	23 H3	33	OU	NO 7 COAL		5786		199								
7N	10W	23 H4	30	SA	LOCAL MINE		5671		199								
7N	10W	24 G5	16	WW	KUHSE E		6564	402	199	34							
7N	11W	21 G4	10	WW	KUHSE E		6380	328	198	38							
7N	11W	28 A5	11	PT	R GILHAM		7400	1800	198								
7N	11W	32 C1	12	DD	LNGYR EXPL	2	6400	47	198	26							
7N	11W	32 C1	13	DD	LNGYR EXPL	1	6400	52	198	26							
7N	11W	32 C6	15	PT	WNTERS BRO		6650	887	198	29							
7N	11W	32 C8	14	PT	GERSON A W		6550	2235	198	39							
8N	10W	27 E3	5	PT	GOULD EM		5923	1805	199	39							
8N	10W	27 E3	5	PT	NO 2 COAL												
8N	11W	19 H5	6	WW	KUHSE E		5800	184	198	38							
8N	11W	21 D8	7	WW	ICE PLANT		6400	630	198								
8N	11W	28 H8	8	WW	JERSEYVILLE	2	6462	1542	198	95							
8N	11W	36 B6	9	WW	KUHSE		6100	235	198	33							
9N	10W	27 A3	1	WW	KUHSE		5513	755	199	38							
9N	10W	28 A2	2	PT	ERIE DRILL		5430	616	199	39							
9N	10W	28 A2	2	PT	NO 2 COAL												
9N	10W	35 D5	3	WS	J T RYAN		5960	36	199								
9N	10W	36 B5	4	WS	RYAN J T		5936	136	199								
					38												

(See cover page for explanation of all symbols)

Location of Hole				County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5 *		
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft. In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. In.
7 N	6 W			229	DD	MACOUPIN JAN 1 1942												
7 N	6 W			230	DD	D SIMPSON	2		152		*	7	144		6 11			
7 N	6 W			231	DD	D SIMPSON	3		171		5	7	165		7 03			
7 N	6 W			232	DD	D SIMPSON	1		179		5	7	172		6 04			
7 N	6 W			228	PT	D SIMPSON	4		182		5	7	176		5 02			
						H FSTETTER	2		447		*		193		7 00			
7 N	6 W	1 E7		316	SA	CONSOL STL	10	6881		201			420	268	8 00			
7 N	6 W	1 H5		358	DD	MADISON CC	18	6817	750	201	24		404	278	8 00			
7 N	6 W	1 H6		255	SH	MT OLV CC	5	6818	426	201	87		410	272	8 06			
7 N	6 W	2 A2		317	SA	CONSOL STL	9	6832		201			416	267	8 00			
7 N	6 W	2 H6		359	WW	MT OLV TST	3	6598	199	201	31							
7 N	6 W	3 G4		360	WW	MT OLV TST	2	6599	266	201	31							
7 N	6 W	3 H6		361	WW	MT OLV TST	1	6500	259	201	31	7						
7 N	6 W	5 H7		234	DD	SUPERIOR CC	2	6343	342	200	2		332	302	7 06			
7 N	6 W	6 E5		256	SH	SUPERIOR CC	2 HS	6256	321	200	4		314	312	7 06			
7 N	6 W	6 E5		411	SH	SUPERIOR CC	2 AS	6350	332	200			325	310	7 06			
7 N	6 W	7 A7		235	DD	SUPERIOR CC	6	6174	298	200	3		289	328	7 06			
7 N	6 W	9 G4		257	SH	CONSOL STL	15	6544		200			375	279	7 08			
7 N	6 W	11 D5		258	SA	CONSOL STL	8	6749	418	201	87		401	274	7 09			
7 N	6 W	14 D5		362	DD	MADISON CC	4	6556	615	201	21		388	268	4 11	479	177	2 05
7 N	6 W	14 D5		362	DD	NO 2 COAL												
7 N	6 W	15 D2		318	SA	CONSOL ST LANCH		6684		201			315	313	5 00			
7 N	6 W	17 D6		236	PT	MILLER OC	1	6282	639	200								
7 N	6 W	18 F2		428	PN	NO 2 COAL		6050		200	18							
7 N	6 W	19 F4		406	PS	MILLER OC		5400	601	200								
7 N	6 W	19 G4		363	PN			5450		200								
7 N	6 W	19 G5		407	PS			5530		200								
7 N	6 W	19 G6		364	PN			5530		200								
7 N	6 W	21 A3		259	SH		7	5514	375	200			357	294	6 06			
7 N	6 W	25 E7		377	PN	CONSOL STL		6294		201								
7 N	6 W	26 C6		239	DD	WILLIAMSON		6344	369	201			362	272	7 00			
7 N	6 W	26 F6		378	PN			6366		201								
7 N	6 W	29 A3		319	SA	CONSOL STL		6280		200	5		325	303	7 00			
7 N	6 W	30 C8		365	PS	MILLER		6040		200								
7 N	6 W	30 G5		272	SA	CONSOL STL	14	6250		200			280	345	7 00			

(See cover page for explanation of all symbols)

MCPN.

Location of Hole				County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Deformation Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.
7 N	6 W	32	D6	320	SA	CONSOL STL	6	6247	P	200			309	316	7	00				
7 N	6 W	35	D5	240	DD	WILLIAMSON	3	6190	T	201			330	289	4	00				
7 N	7 W	3	D7	426	PN	MILLER OC		6000	T	200	16									
7 N	7 W	4	G8	188	DD	SUPERIOR CC	34	6563	P	200	17		312	344	7	01				
7 N	7 W	8	A8	189	DD	HUNT RW	C1	6471	P	200	17		280	367	5	10				
7 N	7 W	9	E4	190	DD	SUPERIOR CC	18	6504	P	200	13		309	341	7	00				
7 N	7 W	9	E8	191	PT	OHIO OIL		6457	P	200										
7 N	7 W	9	G8	192	DD	SUPERIOR CC	33	6504	P	200	17		301	349	6	11				
7 N	7 W	10	A8	425	PN	OHIO OIL		6350	T	200	16									
7 N	7 W	10	D3	195	DD	SUPERIOR CC	22	6330	P	200	13		306	327	6	11	400	233		2 06
7 N	7 W	10	D3	195	DD	NO 2 COAL														
7 N	7 W	10	D4	199	DD	SUPERIOR CC	24	6403	C	200	13		296	344	7	06				
7 N	7 W	10	D4	199	DD	NO 2 COAL														
7 N	7 W	10	E2	197	DD	SUPERIOR CC	31	6305	P	200	17		301	330	7	07				
7 N	7 W	10	E3	194	DD	SUPERIOR CC	17	6357	P	200	13		297	339	7	02				
7 N	7 W	10	E3	196	DD	SUPERIOR CC	30	6336	P	200	17		302	332	7	02				
7 N	7 W	10	E3	198	DD	SUPERIOR CC	29	6334	C	200	17		307	326	5	08				
7 N	7 W	10	E3	254	SH	SUPERIOR CC	4	6381	P	200	17		307	331	7	00				
7 N	7 W	10	E4	200	DD	SUPERIOR CC		6333	P	200	17		306	327	7	09				
7 N	7 W	10	H2	193	DD	SUPERIOR CC	7	6390	C	200	13		310	329	7	06				
7 N	7 W	12	E7	202	PT	OHIO OIL		6340	H	200	15		289	345	8	00				
7 N	7 W	13	B1	203	PT	SNOWDN BRO		5511	H	200	14		230	321	7	00				
7 N	7 W	13	B3	204	PS	MILLER OC		5350	T	200		7	226	309	7	00				
7 N	7 W	13	B6	427	PN	LANGRWSCH		6000	T	200	17									
7 N	7 W	14	A2	379	PS	MILLER OC		6090	P	200	16		257	352						
7 N	7 W	14	A3	415	PN	FLEEG LAMB		6100	T	200	16									
7 N	7 W	14	A4	413	PN	DUNCANBROS	5	6100	T	200	31									
7 N	7 W	14	A4	339	PS	FLEEG LAMB	2	6120	P	200	15		257	355	7	00				
7 N	7 W	14	A5	265	PN	DUNCANBROS		6142	P	200	31									
7 N	7 W	14	A5	412	PN	DUNCANBROS		6080	T	200	30									
7 N	7 W	14	A5	208	PS	MILLER OC		6113	Y	200	15		248	363	7	00				
7 N	7 W	14	A6	292	PT	DUNCANBROS	3	6131	P	200	31		243	370	7	00				
7 N	7 W	14	A7	205	PS	MILLER OC		6117	Y	200	15		245	367	7	00				
7 N	7 W	14	B2	206	PS	MILLER BRO		6095	P	200	17									
7 N	7 W	14	C3	414	PN	FLEEG LAMB		6100	P	200	16									
7 N	7 W	14	C5	382	PS	FLEEGOR D		6130	P	200	16									
7 N	7 W	14	C7	338	PS	FLEEG LAMB	1	6110	P	200	15		247	364	7	00				
7 N	7 W	14	D2	381	PS	SCHOOL HSC		6120	P	200	16		252	360						
7 N	7 W	14	E1	383	PS	OHIO OIL		6130	P	200	17									
7 N	7 W	14	F8	384	PS	MILLRT OV		5779	P	200	19		222	356						
7 N	7 W	14	G2	385	PS	WALL		6210	P	200										

(See cover page for explanation of all symbols)

MCPN.

Location of Hole				County Number	Type of Hole	Operator	Op'r's Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Pt.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Pt.	Thickness In.
7 N	7 W	15	D2	422	PN	TURNER W L		6000		200	*19		240	356						
7 N	7 W	15	E1	386	PS	HUCKLEBRY		5960		200	*16									
7 N	7 W	15	E5	417	PN	OHIO OIL		6000		200	*15									
7 N	7 W	15	F5	421	PN	HUCKLEBRY		6000		200	*16									
7 N	7 W	15	F5	387	PT	OHIO OIL		5740	1500	200	*15		242	331	6	00				
7 N	7 W	15	F6	418	PN	OHIO OIL		5700		200	*15									
7 N	7 W	15	F7	388	PS	MILLER OC		6210		200	*16		285	336						
7 N	7 W	15	G1	389	PS	HOOD H		6130		200	*16		260	353						
7 N	7 W	15	G4	390	PS	OHIO OIL		6120		200	*16		268	344						
7 N	7 W	15	G6	419	PN	OHIO OIL		6100		200	*16									
7 N	7 W	15	H4	420	PN	OHIO OIL		6100		200	*16									
7 N	7 W	18	E7	209	DD	HUNTER W	C2	6239	281	200	*17		270	354	6	07				
7 N	7 W	21	G4	391	PS	BAUER A		5880		200			248	340						
7 N	7 W	22	F5	210	DD	SUPERIOR CC	8	6088	283	200	3		276	333	6	08				
7 N	7 W	22	H1	392	PS	OHIO OIL		5950		200	16		243	352						
7 N	7 W	23	D1	212	PS	MILLER GAS		5995	610	200	*		270	330	7	00				
7 N	7 W	23	D5	393	PS	WILDER E G		6010		200	*		273	328						
7 N	7 W	23	D7	394	PS	MILLER OC		6000		200	*16									
7 N	7 W	23	F3	395	PS	MILLER OC		6050		200	*16		260	345						
7 N	7 W	23	G2	396	PS	MILLER OC		6080		200	*		246	362						
7 N	7 W	23	G4	263	PS	MILLER GAS		6094	506	200	*		256	353	7	00				
7 N	7 W	23	H2	262	PS	MILLER GAS		5847	470	200	*16		224	361						
7 N	7 W	23	H3	263	PT	DUNCANBROS	4	6080	2371	200	*31		260	348	5	00				
7 N	7 W	23	H3	260	PS	LANGERW SCH		6091	500	200	*17		249	360	6	00				
7 N	7 W	23	H3	211	DD	SUPERIOR CC	11	6089	258	200	*		250	359	6	11				
7 N	7 W	23	H4	416	PN	LANGERW SCH		6100		200	*17									
7 N	7 W	23	H4	261	PS	MILLER OC	1	6100	500	200	*16		247	363	6	00				
7 N	7 W	23	H7	207	PS	MILLER OC		6132	500	200	*15		247	366	7	00				
7 N	7 W	23	H8	213	PS	MILLER OC	1	6075	495	200	*16		260	348	7	00				
7 N	7 W	24	B5	397	PS	IBBETSON E		5300		200	*15		202	328						
7 N	7 W	24	C4	215	PT	MILLER GAS		5265	450	200	15		185	342	6	00				
7 N	7 W	24	C5	424	PN	MILLER OC		5900		200	16									
7 N	7 W	24	D5	398	PS	MILLER OC		5320		200	15		200	332						
7 N	7 W	24	D7	399	PS	MILLER OC		5900		200	16									
7 N	7 W	24	E4	264	PS	MILLER GAS	1	5310	451	200	16									
7 N	7 W	24	E5	401	PS	OHIO OIL		5340		200	16		205	329						
7 N	7 W	24	E5	400	DS	SUPERIOR CC		5310		200			200	331						
7 N	7 W	24	G5	402	PS	ADLER H		5810		200			251	330						
7 N	7 W	24	G7	403	PS	ADLER H		5710		200			240	331						
7 N	7 W	25	A3	201	PS	MILLER OC		5987	538	200	15		260	339						

(See cover page for explanation of all symbols)

Location of Hole				County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.
7 N	7 W	25	B 2	268	SA	MILLER OC		5530	474	200			210	343						
7 N	7 W	25	C 7	217	PT	WOOD O C	1	5319		200	15		197	335	7	00				
7 N	7 W	25	G 4	423	PT	DRTM DGE OC		5900		200	30									
7 N	7 W	25	G 4	503	PT	SUPERIOR CC	10	5650		200										
7 N	7 W	26	C 8	218	DD			5885	249	200	3		242	347	7	00				
7 N	7 W	26	D 8	219	DD	SUPERIOR CC	36	5930	271	200	18		263	330	7	08				
7 N	7 W	27	E 2	221	DD	SUPERIOR CC	38	5948	266	200	18		258	337	7	05				
7 N	7 W	27	E 2	222	DD	SUPERIOR CC	39	5961	270	200	18		263	333	6	10				
7 N	7 W	27	G 2	271	DD	SUPERIOR CC	41	5958	180	200	18									
7 N	7 W	27	G 5	224	DD	SUPERIOR CC	42	5980	272	200	18		263	335	7	03				
7 N	7 W	27	H 1	220	DD	SUPERIOR CC	40	6022	271	200	18		264	338	7	04				
7 N	7 W	27	H 4	223	DD	SUPERIOR CC	43	5995	272	200	18		263	337	7	07				
7 N	7 W	28	A 4	225	DD	SUPERIOR CC	9	5907	249	200	3		242	349	6	03				
7 N	7 W	28	A 4	357	DD	SUPERIOR CC	37	5900	93	200	18									
7 N	7 W	30	H 5	226	DD	HUNT R W	C3	5917	227	200	17		222	370	5	02				
7 N	7 W	36	H 3	216	PT	MILLER OC	1	5325	671	200	15		195	338	7	00				
7 N	8 W	12	F 1	178	DD	HUNT R W	D1	6513	282	200	17		273	378	5	09				
7 N	8 W	13	B 6	179	SH	BAUSER ED		6191	245	200			240	379	5	00				
7 N	8 W	14	B 5	177	SW	IND C MILK		6727	585	200	24		246	427	4	00				
7 N	8 W	14	D 3	253	SA	CONSOL STL	1	6392		200	12		244	395	5	06				
7 N	8 W	16	A 2	181	SA	CROWHOL LOW	HS	5901		200			160	430	5	00				
7 N	8 W	16	A 2	350	CH	THORP WELL		5740	35	200	33		160	428						
7 N	8 W	21	H 1	180	SA	CROWHOL LOW	AS	5883		200			247	373	6	00				
7 N	8 W	24	G 8	182	SA	NAYLOR M		6196		200			208	373	5	02				
7 N	8 W	26	A 2	183	DD	HUNT R W	C4	5806	218	200	17									
7 N	8 W	26	A 5	351	DN	COAL TEST		6250		200										
7 N	8 W	32	E 2	345	DD	THORP WELL	2	6000	39	200	33		151	391	3	02				
7 N	8 W	32	F 1	184	WW	BIVENS WELL	3	5416	155	200	6									
7 N	8 W	32	F 1	368	WW	THORP WELL		5450	38	200	33									
7 N	8 W	33	E 8	352	DN	COAL TEST		5600		200										
7 N	8 W	34	B 6	185	DD	BIVENS	B1	5430	130	200	6		124	419	2	00				
7 N	8 W	34	E 1	506	DN			6000		200										
7 N	8 W	35	H 4	186	SA	JORDAN LAN		5906	227	200	29		225	366	6	00				
7 N	8 W	36	D 1	187	DD	HUNT R W	C5	5883		200	17		222	366	4	06				
7 N	8 W	36	E 5	298	DD			6020		200										
7 N	9 W	35	E 1	370	SA	LYKING L		5246		199			90	461						
7 N	9 W	36	E 7	410	SH	MOORE CC	AS	5512		199			115	462	5	00				
7 N	9 W	36	E 7	285	SH	DUNCANBROS	HS	5769		200	21		386	281	5	00				
8 N	6 W	4	A 8	516	PT	DUNCANBROS	2	6667	650	200										
8 N	6 W	5	B 3		PN			6630												

(See cover page for explanation of all symbols)

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Location of Hole				County Number		Type of Hole	Operator	Op'r's Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Depth (Feet)	Coal No. 6		Depth (Feet)	Coal No. 5 %	
Township	Range	Section			Altitude (Feet)									Thickness Ft. In.	Altitude (Feet)		Thickness Ft. In.	
8 N	6 W	7	267	SA	PERRY CC	KIMB	6630	P	655	200	200	30	377	286	9 00			
8 N	6 W	8	452	PT	DUNCANBROS		6612	P		200	200	30	370	291	6 00			
8 N	6 W	8	518	PN	DUNCANBROS		6634	P		200	200	30						
8 N	6 W	8	519	PN	DUNCANBROS		6619	P		200	200	30						
8 N	6 W	8	520	PN	DUNCANBROS		6612	P		200	200	30						
8 N	6 W	8	521	PN	DUNCANBROS		6611	P		200	200	30						
8 N	6 W	8	522	PT	DUNCANBROS		6625	P		200	200	21						
8 N	6 W	8	286	PT	DUNCANBROS		6626	P	2560	200	200	21	368	295	6 00			
8 N	6 W	9	313	SA	CONSOL STL	CLYD	6661	P		200	200		396	270	6 00			
8 N	6 W	9	500	CN	DUNCANBROS		6630	F		200	200							
8 N	6 W	9	132	PT	DUNCANBROS		6665	P	652	200	200	20	385	282				
8 N	6 W	9	133	PS	DUNCANBROS	4	6665	P	792	200	200	20	380	287				
8 N	6 W	9	405	SA	CONSOL STL	AS	6651	P		200	200							
8 N	6 W	9	501	CN	DUNCANBROS		6630	F		200	200	21						
8 N	6 W	9	287	PS	DUNCANBROS	5	6663	P	649	200	200							
8 N	6 W	11	134	DD	SUPERIOR CC	28	6663	P	413	201	201	14	405	261	7 02			
8 N	6 W	12	135	DD	SUPERIOR CC	26	6650	H	415	201	201	14	409	256	5 03			
8 N	6 W	15	136	DD	SUPERIOR CC	25	6029	P	361	201	201	15	353	250	6 08			
8 N	6 W	17	176	PN	RICE HW		6450	T		200	200	15						
8 N	6 W	18	138	DD	SUPERIOR CC	15	6545	P	375	200	200	13	366	289	7 09			
8 N	6 W	18	288	PT	DUNCANBROS		6550	T	644	200	200		345	310	8 00			
8 N	6 W	18	314	SA	CONSOL STL	GILL	6540	P		200	200		366	288	8 00			
8 N	6 W	19	139	DD	SUPERIOR CC	20	6544	P	350	200	200	13	340	314	8 09			
8 N	6 W	20	289	GW	HERCULES OG		6493	P	575	200	200	31	322	327	9 00			
8 N	6 W	20	289	GW	NO 2 COAL											407	242	5 00
8 N	6 W	20	436	PN	COAG OG		6200	T		200	200	23						
8 N	6 W	20	437	PN	COAG OG		6450	T		200	200	23						
8 N	6 W	20	438	PN	COAG OG		6430	T		200	200	23						
8 N	6 W	25	322	DD	MADISON CC	19	6840	C	750	201	201	24	416	268	8 03			
8 N	6 W	25	322	DD	NO 2 COAL													
8 N	6 W	25	140	DD	SUPERIOR CC	27	6933	P	444	201	201	14	436	257	7 04			
8 N	6 W	28	141	DD	SUPERIOR CC	16	5813	C	302	200	200	13	293	288	8 00			
8 N	6 W	29	430	PN	COAG OG		6050	T		200	200	25						
8 N	6 W	29	142	PT	COAG OG		6250	T	603	200	200	25	315	310	6 00			
8 N	6 W	29	439	PN	COAG OG		6400	T		200	200	25						
8 N	6 W	29	214	PN	COAG OG		5950	T		200	200	25						
8 N	6 W	29	347	PN			5600	T		200	200							
8 N	6 W	29	348	PN			6400	T		200	200							
8 N	6 W	29	250	SH	SUPERIOR CC	1	6300	P		200	200	3	320	310	7 06			
8 N	6 W	29	143	PT	COAG OG		6470	P	536	200	200	23	325	322	6 00			

(See cover page for explanation of all symbols)

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Location of Hole				County Number	Type of Hole	Operator	Op'r's Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Geological Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.
8 N	6 W	29	G 4	431	PN	COAG OG C0		6451		200	25									
8 N	6 W	29	H 5	233	PN	COAG OG		6450		200	23									
8 N	6 W	29	H 5	227	PN	SHERMAN		6500		200	30									
8 N	6 W	30	A 1	144	DD	SUPERIOR CC		6418	347	200	3									
8 N	6 W	30	E 5	237	PN	SHERMAN		6200		200	28									
8 N	6 W	30	E 8	238	PN	SHERMAN		6200		200	29									
8 N	6 W	30	H 6	145	DD	SUPERIOR CC	23	6520	346	200	13									
8 N	6 W	31	A 8	147	DD	SUPERIOR CC	1A	6344	332	200	33									
8 N	6 W	31	H 8	146	DD	SUPERIOR CC	4	6376	349	200	3									
8 N	6 W	34	F 8	148	DD	SUPERIOR CC	21	6554	361	200	13									
8 N	6 W	35	G 3	149	DD	MADISON CC	15	6783	2000	201	23									
8 N	6 W	35	G 3	149	DD	NO 4 COAL														
8 N	6 W	36	A 1	149	DD	MADISON CC	16	6732	1000	201	23									
8 N	6 W	3	B 5	273	PN	MILLIKEN J		6468		200	16									
8 N	7 W	4	A 3	152	DD	SUPERIOR CC	14	6505	302	200	3									
8 N	7 W	4	F 7	151	DD	UNION PAC	4	6527	293	200	12									
8 N	7 W	10	F 1	490	CN	CRAWFORD		6300		200										
8 N	7 W	10	F 5	153	DD	SUPERIOR CC	12	6458	315	200	3									
8 N	7 W	11	H 7	154	DD	CONSOL STL	DOR	6598	303	200	3									
8 N	7 W	13	A 1	315	SA	CONSOL STL			373	200	80									
8 N	7 W	13	A 1	409	SA	CONSOL STL	AS	6593		200	*									
8 N	7 W	13	E 4	156	CH	GILLESPIE CC		6630	353	200	18									
8 N	7 W	13	E 4	251	SH	GILLESPIE CC	CC	6631		200										
8 N	7 W	13	F 4	155	DD	SUPERIOR CC	19	6671	368	200	13									
8 N	7 W	15	A 3	157	DD	SUPERIOR CC	13	6544	328	200	3									
8 N	7 W	18	A 8	158	DD	SULLIVN MA	5	6401	270	200	12									
8 N	7 W	23	A 2	290	PT	HERCULES OG		6480	625	200	31									
8 N	7 W	23	A 2	290	PT	NO 2 COAL														
8 N	7 W	25	G 1	159	PT	SHERMAN BRO		6423	546	200	23									
8 N	7 W	25	G 2	163	PT	SHERMAN BRO		6494	606	200	23									
8 N	7 W	29	A 4	160	DD	SUPERIOR CC	35	6606	317	200	17									
8 N	7 W	32	B 8	491	DD	SULLIVN MA		6620		200										
8 N	7 W	32	D 5	161	DD	SULLIVN MA	15	6638	310	200	13									
8 N	7 W	34	D 4	162	DD	SUPERIOR CC		6519	324	200	3									
8 N	7 W	36	H 8	252	SH	SUPERIOR CC	3	6503		200	5									
8 N	8 W	2	A 3	164	DD	SULLIVN MA	10	5812	192	200	12									
8 N	8 W	10	B 6	165	DD	SULLIVN MA	7	6258	253	200	12									
8 N	8 W	12	C 4	167	DD	R W HUNT		6390	254	200	17									
8 N	8 W	12	D 8	166	DD	DUNHAM		6330	244	200	12									
8 N	8 W	14	F 2	168	DD	R W HUNT	D6	6273	259	200	17									

(See cover page for explanation of all symbols)

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Location of Hole				County Number		Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section												Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.
8 N	8 W	15 A5	455	PT	AM PET COR		6357 P	440	200	38	225	411	5 00	309	327	2 00					
8 N	8 W	15 A5	455	PT	NO 2 COAL		6246 P	425	200	38	214	411	3 00	298	327						
8 N	8 W	15 A6	453	PT	AM PET COR		6355 P	476	200	30	220	416	3 00	300	336	6 00					
8 N	8 W	15 A6	291	PT	YOUNG L C		6127 P	465	200	36	212	401	4 00								
8 N	8 W	15 A6	291	PT	NO 2 COAL		6360 C	550	200	38	237	399	6 00	324	312	2 00					
8 N	8 W	15 B7	323	PT	BOONE OC		6400 T	505	200	40	237	408									
8 N	8 W	15 C5	454	PT	AM PET COR		6360 P	472	200	39	230	406									
8 N	8 W	15 C5	454	PT	NO 2 COAL		6404 P	448	200	39	230	410									
8 N	8 W	15 E6	349	PT	WILLIAMS		6386 P	444	200	39	225	414									
8 N	8 W	22 D4	461	PT	AM PET COR		6514 P	270	200	17	263	388	5 10	325	333	3 00					
8 N	8 W	22 F8	456	CH	AM PET COR		6560 H	297	200	17	286	370	6 02								
8 N	8 W	22 G6	344	PT	AM PET COR		6366 C	250	200	17	239	398	6 05								
8 N	8 W	22 G6	344	PT	NO 2 COAL		6580 H	550	200	39	235	423	5 00								
8 N	8 W	22 H4	457	PT	AM PET COR		6717 C	303	200	17	296	376	5 10								
8 N	8 W	22 H4	457	PT	NO 2 COAL		6696 C	293	200	12	284	386	5 04								
8 N	8 W	23 E1	169	DD	R W HUNT	D5	6093 P	351	199	7			*0								
8 N	8 W	25 A1	170	DD	R W HUNT	D3	6080 F	623	199	34			*0								
8 N	8 W	26 A5	171	DD	R W HUNT	D4	6034 P	1755	199	38	197	441	5 06	220	383	3 00					
8 N	8 W	27 A6	458	PT	R J YOUNG		6263 P	930	199	7	169	457	1 00	289	349	1 00					
8 N	8 W	27 A6	458	PT	NO 2 COAL		6420 P		199												
8 N	8 W	27 A6	458	PT	NO 2 COAL		6342 P		199												
8 N	8 W	36 A1	172	DD	R W HUNT	D2	6410 H		200												
8 N	8 W	36 B6	173	DD	SULLIVN MA	13	6380 F	338	200	3	331	307	7 00								
8 N	9 W	6 F6	174	SA	GARRETT M	AS	6430 H	392	200	13	346	297	4 05								
8 N	9 W	6 G6	249	SA	GARRETT M	HS	6585 C	403	200	13	361	298	4 06								
8 N	9 W	6 H8	459	WW	KUHSE E		6700 T		201		376	294	6 02								
8 N	9 W	6 H8	459	WW	NO 2 COAL		6680 H	840	201	11	390	278	4 00								
8 N	9 W	13 A7	460	PS	SPENCEBROS		6540 T	342	200	13	335	319	6 00								
8 N	9 W	13 A7	460	PS	NO 2 COAL		6565 Y	365	200	13	357	300	7 04								
8 N	9 W	25 G2	175	PT	SHPMANWELL		6682 Y	373	200	13	359	299	5 02								
8 N	9 W	25 G5	369	SA	SHIPMAN CO		6720 H	382	200	13	373	299	6 02								
8 N	9 W	27 H5	408	PN																	
9 N	6 W	17 G8	137	PN	MILLER OC																
9 N	6 W	18 F1	125	DD	WILMS STAR	3															
9 N	6 W	18 H1	126	DD	PITTS BUFF	4															
9 N	6 W	21 H1	127	DD	PITTS BUFF	2															
9 N	6 W	23 A2	469	CS																	
9 N	6 W	25 D7	335	PT	ED POUND	5															
9 N	6 W	30 D1	128	DD	PITTS BUFF	3															
9 N	6 W	31 A1	129	DD	PITTS BUFF	2															
9 N	6 W	32 G1	130	DD	WILMS STAR	3															
9 N	6 W	32 G1	131	DD	PITTS BUFF	1															

(See cover page for explanation of all symbols)

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Location of Hole				County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section	Depth (Feet)										Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	
9 N	6 W	33	H2	150	PT	WIND GANEY		6621	617	200	38		362	300	6	00				
9 N	7 W	1	C5	462	PS	BRDGES ETL		6330	1613	191	41									
9 N	7 W	3	G7	478	N			5449		191										
9 N	7 W	4	C4	91	CS	ROWE CO		5482	460	191	12		190	358	5	00				
9 N	7 W	4	F3	447	WW	CRLNVLL CY		5500	85	191	35									
9 N	7 W	5	B8	93	DD	UN PACIFIC	3	6166	256	200	12		245	372	6	00				
9 N	7 W	5	C8	92	PT	CHRYSLER	1	6187	2107	200										
9 N	7 W	5	C8	92	PT	NO 2 COAL														
9 N	7 W	6	G4	94	PS	ROWE CO	1	6280	507	191	12		261	367	7	00	290	329		3 00
9 N	7 W	7	C1	100	PT	IMPROMP XC	1	5459	409	200			160	386	5	00				
9 N	7 W	7	C5	95	PT	IMPROMP XC		5352	455	100			160	375			241	294		
9 N	7 W	7	C5	95	PT	NO 2 COAL		5424	1380	200	40									
9 N	7 W	7	D1	463	PT	O Z SMITH	1	5548	381	200										
9 N	7 W	7	D2	270	CN	IMPROMP XC		5615		200										
9 N	7 W	7	D2	294	CN			6150		200										
9 N	7 W	7	G3	492	PN			6160		200										
9 N	7 W	8	B2	346	PS	IMPROMP XC	1	5990	548	200	9									
9 N	7 W	8	C5	493	PN			5300		200	9									
9 N	7 W	8	C7	493	PN			5370		200										
9 N	7 W	8	C8	515	PN			5373		200	9									
9 N	7 W	8	C8	494	PN			5360		200										
9 N	7 W	8	D4	380	PN			5379		200										
9 N	7 W	8	D7	495	PN			5400		200										
9 N	7 W	8	D7	514	PN			5381		200										
9 N	7 W	8	E3	106	PT	IBBETSON	2	5399	376	200	11									
9 N	7 W	8	E4	105	PT	IBBETSON	1	5410	410	200	11									
9 N	7 W	8	E4	107	PT	IBBETSON	3	5402	412	200	11									
9 N	7 W	8	E4	512	PN			5403		200										
9 N	7 W	8	E5	98	PT	IMPROMP XC	5	5364	437	200	11									
9 N	7 W	8	E5	376	PT			5419		200										
9 N	7 W	8	E5	510	PN			5393		200										
9 N	7 W	8	E6	375	PT			5374		200										
9 N	7 W	8	E6	99	PT	IMPROMP XC	3	5407	506	200			160	381	5	00				
9 N	7 W	8	E7	513	PN			5497		200										
9 N	7 W	8	F3	337	PS	IBBETSON	5	5450	420	200	11									
9 N	7 W	8	F4	511	PN			5518		200										
9 N	7 W	8	F4	108	PS	IBBETSON	4	5427	419	200	11									
9 N	7 W	8	F5	102	PT	IMPROMP XC	7	5416	413	200	13									
9 N	7 W	8	F6	374	PN			5667		200										

(See cover page for explanation of all symbols)

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Location of Hole				County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5 *				
Township	Range	Section	Depth (Feet)										Altitude (Feet)	Thickness		Depth (Feet)	Altitude (Feet)	Thickness		
														Feet	In.			Feet	In.	
9 N	7 W	8	F 6	295	PT	CROSS ETAL		5600	444	200*	38		196	364	7	00	270	290		
9 N	7 W	8	F 6	295	PT	NO 2 COAL XC		5430	396	200*	13									
9 N	7 W	8	F 6	103	PS	IMPROMP XC	1	5490	466	200*	13		255	361	4	00				
9 N	7 W	8	G 8	104	PT	OHIO OIL	1	6160	565	200*	13									
9 N	7 W	9	F 2	109	CH	LISTON	1	6131	530	200			240	373	10	00				
9 N	7 W	10	C 1	296	DD	UN PACIFIC	1	6334	307	200	12		294	339	7	04				
9 N	7 W	10	F 1	112	PT	IMPROMP OG	1	5556	578	200			235	321	5	00				
9 N	7 W	10	F 5	111	PT	CHRYSLER		5529	525	200			210	343	5	00				
9 N	7 W	10	H 8	404	DN	UN PACIFIC		5510		200										
9 N	7 W	15	C 4	113	PT	GRIFFELL	1	6830	655	200	10		360	323	5	00				
9 N	7 W	16	G 5	114	PT	IMPROMP XC	1	6279	507	200			257	371	7	00	340	288		
9 N	7 W	16	G 5	114	PT	NO 2 COAL														
9 N	7 W	16	H 5	115	PS	ROWE CO	2	6238	507	200	12		257	367	7	00				
9 N	7 W	17	A 3	116	DD	UN PACIFIC	11	5505	192	200	12		183	368	5	00				
9 N	7 W	17	B 3	118	PT	CHRYSLER		5470		200										
9 N	7 W	17	D 6	119	PS	D DENBY	2	5450	430	200			172	371	5	00				
9 N	7 W	17	F 7	117	PT	IMPROMP XC		5431	450	200			175	364	5	00				
9 N	7 W	18	H 2	120	PT	CHRYSLER	3	5385	880	200	9		195	372	7	00				
9 N	7 W	21	B 5	277	GW	HERCULESOG		5669	460	200	31									
9 N	7 W	21	D 6	276	GW	HERCULESOG		5760	420	200	30		220	380						
9 N	7 W	21	D 8	282	GW	HERCULESOG		6000	457	200	31		178	389			260	307	7	00
9 N	7 W	21	E 7	275	PT	HERCULESOG		5670	390	200*	30									
9 N	7 W	21	E 7	504	OU	NO 2 COAL		5590		200*										
9 N	7 W	21	E 7			LIMESTONE														
9 N	7 W	21	E 7	121	PS	MILLER OC		5672	417	200*			175	392	7	00				
9 N	7 W	21	E 8	16	PS	MILLER OC		5646	370	200*			187	378						
9 N	7 W	21	F 6	281	GW	HERCULESOG		6330	545	200*	30		227	406	5	00				
9 N	7 W	21	F 8	280	GW	HERCULESOG	4	5650	405	200*	30		187	378	8	00				
9 N	7 W	21	G 6	279	GW	HERCULESOG	3	6270	490	200*	30		255	372	7	00				
9 N	7 W	21	G 8	278	GW	HERCULESOG		5640	417	200*	30		192	372	5	00				
9 N	7 W	22	D 5	122	DD	UN PACIFIC	2	6417	300	200	12		288	354	7	04				
9 N	7 W	23	A 8	448	CH	BUTTERFLD		6430	746	200	38		272	371	7	00				
9 N	7 W	23	A 8	123	CH			6440	284	200	12		275	369	6	10				
9 N	7 W	28	D 1	75	PS	IMPROMP XC		6382		200	9									
9 N	7 W	28	H 4	283	GW	HERCULESOG		6370	575	200	31		281	356	12	00				
9 N	7 W	29	B 8	124	DD	UN PACIFIC		6249	351	200	12		260	365	18	07	347	278	2	09
9 N	7 W	29	B 8	124	DD	NO 2 COAL														
9 N	7 W	34	H 8	284	PT	HERCULESOG		6350	550	200	31		270	365	5	00				
9 N	8 W	21	C 5	343	PT	ERIE DRILL		5300	500	200	38									

(See cover page for explanation of all symbols)

MCPN

Location of Hole				County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section	Depth (Feet)										Altitude (Feet)	Thickness Ft. In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. In.
10 N	6 W	20	A 4	61	DD	R W HUNT	B 8	6230	341	191	17		332	291	6 06					
10 N	6 W	21	E 4	58	DD	R W HUNT	B 7	6347	338	191	17		327	308	6 09					
10 N	6 W	22	G 4	59	DD	R W HUNT	C 10	6299	346	190	17		338	292	6 04					
10 N	6 W	23	H 5	60	DD	R W HUNT	A 10	6109	326	190	17		318	293	6 01					
10 N	6 W	30	D 1	62	DD	CRAWFORD	15	6200	319	191	3	7	311	309	7 02					
10 N	6 W	32	A 1	63	DD	CRAWFORD	5	6387	327	191	3		320	319	6 00					
10 N	6 W	33	A 4	64	DD	PITTS BUFF	6	6410	370	191	13		326	315	4 01					
10 N	6 W	36	A 5	468	CN			6561		190										
10 N	6 W	36	A 5	509	CN			6346		190										
10 N	7 W	4	B 3	65	DD	UN PACIFIC	14	6296	318	191	12		308	322	6 03					
10 N	7 W	12	E 5	68	DD	UN PACIFIC	17	6144	352	191	13	3	341	273	7 10					
10 N	7 W	12	E 6	67	PT	MILLER FAD	1	6126	580	191	23		285	328	7 00					
10 N	7 W	12	E 6	67	PT	NO 2 COAL														
10 N	7 W	13	D 7	69	CH	CRAWFORD	2	5975	323	191	12		312	286	7 07					
10 N	7 W	17	A 7	71	PT	OHIO OIL		6275	482	191	13		226	402	6 00					
10 N	7 W	17	H 4	70	DD	UN PACIFIC	18	6423	301	191	13		289	353	6 01					
10 N	7 W	20	A 5	479	CN			6217		191	*									
10 N	7 W	20	B 4	480	CN			6171		191	*									
10 N	7 W	20	B 5	486	CN			6210		191	*									
10 N	7 W	20	C 4	481	CN			6320		191	*									
10 N	7 W	20	C 5	332	PK	MUDGETT F	7	6233	485	191	*	41								
10 N	7 W	20	C 6	336	PK	MUDGETT F	9	6128	472	191	*	41								
10 N	7 W	20	C 6	334	PK	MUDGETT F	8	6113	472	191	*	41								
10 N	7 W	20	C 6	484	CN			6193		191	*									
10 N	7 W	20	C 6	487	CN			6190		191	*									
10 N	7 W	20	C 6	488	CN			6190		191	*									
10 N	7 W	20	D 4	482	CN			6303		191	*									
10 N	7 W	20	D 5	483	CN			6310		191	*									
10 N	7 W	20	D 6	485	CN			6223		191	*									
10 N	7 W	20	D 6	489	CN			6080		191	*									
10 N	7 W	21	B 5	367	SA	O CALAMITY		6300		191										
10 N	7 W	21	G 2	247	SH	STD OC	1B	6304		191			294	336	6 06					
10 N	7 W	24	D 2	72	PT	IMPROV OG	1	5750	550	191			278	297	4 00					
10 N	7 W	24	D 2	72	PT	NO 2 COAL														
10 N	7 W	24	G 4	73	DD	UN PACIFIC	12	6180	351	191	12		342	276	6 06					
10 N	7 W	25	F 6	74	PT	IBBET S OC		5758	791	191			262	314	7 00					
10 N	7 W	28	F 7	3	CH				270	191	*		264		6 00					
10 N	7 W	28	H 1	248	SA	STD OC	1A	6286		191			258	371	7 00					
10 N	7 W	30	H 1	446	PT	MUDGETT F		6194	560	191	40		259	360	2 00					
10 N	7 W	30	H 1	446	PT	NO 2 COAL							370	249						

(See cover page for explanation of all symbols)

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Location of Hole				County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section	Depth (Feet)										Altitude (Feet)	Thickness Ft.	In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	In.	
10N	7W	33	269	SH	S MINE CC			6057		191		3	255	351	6	06				
10N	7W	34	477	CN				6128		191										
10N	7W	34	76	CS	LEOPOLDT OG	2		6231	500	191	9		275	348	7	00				
10N	7W	35	78	PT	IMPROMP OG	2		5611	535	191			220	341	5	00				
10N	7W	35	77	PT	IMPROMP OG	1		5611	447	191	9		208	353	7	00				
10N	7W	35	79	DD	UN PACIFIC	16		5604	228	191	13		216	344	6	10				
10N	7W	36	81	DD	WILM STAR	1		6046	319	191	3		311	294	7	02				
10N	8W	14	353	CS	CRAWFORD			6188	496	191			226	393	6	00				
10N	9W	29	306	SH	DAMS C-C			5195		192			38	482	6	00				
10N	9W	29	429	SA	FROST CO			5200		192*			30	490						
10N	9W	29	355	OU	LIMESTONE			4985		192			50	500						
10N	9W	29	307	SA	DAWSON AW			5500		192				492	3	00				
10N	9W	29	354	SA	LOCAL MINE			4923		192										
10N	9W	29	496	SA	DAVIS MINE			4950		192										
10N	9W	29	304	SA	RUDOLPHIE			5000		192										
10N	9W	30	310	SA	HARBAUGH			5400		192			50	490	5	06				
10N	9W	30	309	SA	RAND CC			5346		192			56	479	7	00				
10N	9W	30	331	SA	BOWMAN JOHN			4979		192			20	478	7	00				
10N	9W	30	308	SA	DAVIS CC			5288		192			47	482	7	00				
10N	9W	30	330	SA	DAVIS CC			5419		192			75	467	7	00				
10N	9W	30	356	SA	PICKFORD C			5398		192*			23	474	6	00				
10N	9W	31	311	SA	KIRCHNER WS			4967		192	39									
10N	9W	32	466	PT	DILL ETAL			5570	1540	192			323	326	6	02				
11N	6W	4	333	DD	CRAWFORD	6		6487	332	191	94		351	323	6	09				
11N	6W	5	244	SA	UNION FC	6		6735	358	191										
11N	6W	18	245	SA	UNION FC	1		6699		191			326	344	6	00				
11N	6W	19	35	CH	PEABODY	6		6527	340	191	13		334	319	5	06				
11N	6W	20	36	DD	PEABODY			6527	333	191	12		328	325	3	00				
11N	6W	24	37	DS		9		6030	328	190			322	281	6	06				
11N	6W	25	38	DD	CRAWFORD			6095	334	190	2		324	286	8	04				
11N	6W	25	508	CN	STD OC	2		6116		190										
11N	6W	29	266	SA	STD OC	2		6373	400	191	18		320	317	7	00				
11N	6W	29	40	DD	STD OC	2		6373		191			316	328	6	06				
11N	6W	29	39	DD	CRAWFORD	8		6442	328	191	2		342	303	7	04				
11N	6W	30	41	DD	PEABODY	5		6454	352	191	13									
11N	6W	33	42	DD	PEABODY	4		6225	320	191	13		311	312	6	02				
11N	6W	34	43	DD	CRAWFORD	10		6084	332	190	3		325	283	6	03				
11N	6W	35	442	PT	ADAMS LAGE			6292	633	190	40		345	284	5	00				
11N	6W	35	467	TD	PEYNTN ETL			6150	620	190	40									
11N	6W	36	44	DD	CRAWFORD	1		6342	361	190	3		354	280	7	00				

Location of Hole				County Number		Type of Hole	Operator	Op'r's Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section												Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.
11 N	7 W	E 1	502	PT	ADAMS	LAGE	B 5	6400	T	1487	191	41		234	406	6	00				
11 N	7 W	G 5	66	DD	R W HUNT		B 4	5806	P	179	191	17		174	374	3	06				
11 N	7 W	A 6	23	DD	R W HUNT		B 1	6398	P	275	191	17		266	329	4	09				
11 N	7 W	E 8	24	DD	R W HUNT		B 2	6322	P	279	191	17		337	363	5	08				
11 N	7 W	E 6	25	DD	R W HUNT		B 3	6516	P	271	191	17		264	388	5	06				
11 N	7 W	H 3	57	DD	R W HUNT		B 6	5730	H	174	191	17		169	404	4	06				
11 N	7 W	E 5	26	DD	R W HUNT		A 4	6339	P	239	191	17		231	403	6	02				
11 N	7 W	E 3	27	DD	R W HUNT		A 3	6574	P	295	191	17		285	372	5	08				
11 N	7 W	B 1	28	DD	R W HUNT		A 2	6612	C	343	191	17		321	340	6	02				
11 N	7 W	A 7	29	DD	R W HUNT		A 1	6592	C	334	191	17		324	335	7	06				
11 N	7 W	A 8	30	CH	PEABODY		A 3	6632	P	342	191	13		323	340	6	06				
11 N	7 W	D 8	31	DD	R W HUNT		A 5	6512	P	280	191	17		271	380	5	05				
11 N	7 W	E 5	32	DD	PEABODY		1	6460	P	321	191	12		314	332	7	04				
11 N	8 W	E 4	19	DD	NW MCPN	CC	1	6593	P	875	191	4		241	418	5	05				
11 N	8 W	F 4	20	DD	NW MCPN	CC	2	6558	P	217	191	4		212	444	4	02				
11 N	8 W	H 6	342	TD	PHILLIPS	P		5750	T	1828	191	38									
11 N	8 W	H 4	449	CH	OHIO	CONOC		6370	H	724	192	11		150	438	5	00				
11 N	8 W	C 8	325	CS	C P BRANT			5880	H	724	171	*		300		5	00				
11 N	9 W	G 3	18	CS	MILLER	H		6350	T	529	192			170	465	7	00				
11 N	9 W	C 8	440	PT	HETTICK	OD		5340	H	1076	192	36									
12 N	6 W	D 4	1	DD	ROYAL	COLL	1	6399	P	342	173	3		253	387	7	06				
12 N	6 W	D 5	299	DN	ROYAL	COLL		6379	P		173										
12 N	6 W	D 6	2	DD	ROYAL	COLL	2	6359	P	254	173	3		246	390	7	09				
12 N	6 W	E 6	297	DN	ROYAL	COLL		6373	P		173										
12 N	6 W	A 3	321	SH	VIRDEN	CC	AS	6604	P		172										
12 N	6 W	A 4	472	SA	C W F	CC		6592	P	320	191			312	365	7	08				
12 N	6 W	A 7	241	SH	VIRDEN	CC	HS	6772	P		172			323	342	6	06				
12 N	6 W	H 3	242	CH	LANE	BORL		6652	P												
12 N	6 W	E 4	432	CH	ROYAL	COLL	3	6479	P	270	173			279	387	8	03				
12 N	6 W	E 1	4	DD	CRAWFORD		7	6657	P	293	191	3		294	362	7	09				
12 N	6 W	A 3	8	DD	CRAWFORD		5	6564	P	302	191	3		306	352	6	10				
12 N	6 W	H 1	7	DD	CRAWFORD		3	6575	P	314	191	3		275	366	7	01				
12 N	6 W	H 7	5	DD	CRAWFORD			6411	P	283	191										
12 N	6 W	B 5	6	DD	CRAWFORD		1	6623	P	376	191	3		322	340		4				
12 N	6 W	B 6	474	N				6636	P		191										
12 N	6 W	E 5	473	N				6629	P		191										
12 N	6 W	F 2	10	DD	CRAWFORD		4	6388	P	372	191	3		286	353	7	06				
12 N	6 W	F 3	9	DD	CRAWFORD		2	6341	P	505	191	3		305	329		6				
														337	297						

(See cover page for explanation of all symbols)

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Location of Hole				County Number	Type of Hole	Operator	Op.'s. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6				Coal No. 5 *			
Township	Range	Section											Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.	Depth (Feet)	Altitude (Feet)	Thickness Ft.	Thickness In.
12 N	6 W	31	H 1	11	DD	CRAWFORD	6	6417	307	191	3		298	344	7	10				
12 N	6 W	32	E 1	12	SA	GRARD COLL	5	6749	352	191			345	330	7	00				
12 N	6 W	36	D 1	499	WW	GIRARD HS				191*										
12 N	6 W	35	B 6	133	CS		3	6660	348	190			339	327	8	07				
12 N	7 W	7	D 8	435	CH	ALDERSON		6830	115	172										
12 N	7 W	8	C 8	243	CH	WALKINGTON	1	6700	90	191										
12 N	7 W	8	D 3	434	CH	ALDERSON	2	6830	116	191										
12 N	7 W	17	E 1	433	CH	ALDERSON	1	6760	120	191										
12 N	7 W	19	G 2	305	PT	O G HAYES		6680	578	191	41		240	428	4	00				
12 N	8 W	4	A 8	34	CH	M M BUTLER		6600	120	191	39									
12 N	8 W	15	B 7	507	CH	RUFUS RUSH		6870	281	171	37		207	478	3	00				
12 N	8 W	29	D 4	15	DD	SULLIVN MA		6845	350	191	4		166	474	5	06				
12 N	8 W	34	G 4	14	DD	NW MCPN CC	3	6400	173	192		7								
12 N	9 W	4	B 4	475	SA	LOCAL MINE		6601		191			2	531						
12 N	9 W	4	C 3	329	SA			5327		171										
12 N	9 W	4	F 1	372	SA	LOCAL MINE		5300		171										
12 N	9 W	4	F 6	303	SA	DUGGER TA		5750		171				540						
12 N	9 W	4	F 7	326	OU	COAL		5400		171										
12 N	9 W	4	G 2	301	SA	WOODS P		5400		171										
12 N	9 W	4	G 2	17	SA	MUSTARD CC		5600	42	171			39	521	2	08				
12 N	9 W	4	G 3	300	SA	LAKE A		5600		171										
12 N	9 W	4	G 3	302	SA	LOGAN FRNK		5800		171										
12 N	9 W	4	G 6	327	OU	LIMESTONE		5700		171*										
12 N	9 W	4	G 6	328	SA	LOCAL MINE		5500		171				534						
12 N	9 W	4	G 7	505	SA	LOCAL MINE		5400		171										

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Location of Hole			County Number	Type of Hole	Operator	Op't's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5½		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. In.
14 N	9 W	19 D 1	4	WW	R R L O N G		6930 H	360	171	41		202	483	4 00	291	394	1 02
14 N	9 W	25 A 5	5	SA	A P P L E C K C C		6850 F	337	171								
14 N	9 W	25 A 5	5	DD	N O 2 C O A L												
14 N	9 W	36 F 3	6	DD	A P P L E C K C C		6822 P	470	171			217	465	1 0	295	387	
14 N	9 W	36 F 3	6	DD	N O 2 C O A L												
14 N	9 W	36 F 3	24	WN	A P P L E C K C C		6823 P		171								
14 N	9 W	36 G 4	25	SA	F I S H E R M		6850 F	91	171								
14 N	10 W	9 E 8	8	SA	N O 2 C O A L		6130 H		171								
14 N	10 W	9 E 8	8	SA													
14 N	10 W	9 G 8	7	DD			6000 T	179	171						76	537	3 00
14 N	10 W	28 E 5	9	CH	F I T Z S I M O N S		6600 T	136	171						128	532	3 09
14 N	10 W	28 E 5	9	CH	N O 2 C O A L												
14 N	10 W	34 A 1	26	WN			6968 P		171	41							
					49												

Location of Hole			County Number	Type of Hole	Operator	Op'r's. Number	Surface Altitude	Total Depth	Quad. Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5*		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. In.
13 N	6 W	2 G5	25	SA	SANGAMON		6211		173			280	341	8 00			
13 N	6 W	10 H2	10	SA	LEFTON M	3	6235		173			263	360	6 08			
13 N	6 W	15 C5	15	SA	UNION F C	54	6383		173	12		301	337	7 00			
13 N	6 W	34 F8	28	SA	PEABODY CC	HS	6529	300	172	12		292	361	7 10			
13 N	6 W	34 G8	73	SA	C W F CC	AS	6467		172								
13 N	6 W	34 G8	69	CH	C W VER CC		6471	625	172	8		292	355	3 06	246	380	2 02
13 N	7 W	7 D5	20	DD	WAVRLEY CC		6257	500	172	4		150	476				
13 N	7 W	7 D5	20	DD	NO 2 COAL												
14 N	6 W	13 G1	21	SA	ILL COL CO	3 HS	6040		173			243	361	7 01			
14 N	6 W	13 G1	75	SA	ILL COL CO	AS	6010		173								
14 N	6 W	35 G2	35	SA	PANTHER CK	AS	6250		173			258	369	7 00			
14 N	6 W	35 H2	22	SA	PANTHER CK	1	6266		173								
14 N	7 W	18 F4	56	SH	COSMO CC	AS	6300		172			170	470	5 10			
14 N	7 W	18 G6	72	SH	COSMO CC	HS	6375	180	172								
14 N	8 W	12 D1	74	PN	KOST		6450		172	33							
					15												

(See cover page for explanation of all symbols.)

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Location of Hole			County Number	Type of Hole	Operator	Op'r's Number	Surface Altitude	Total Depth	Quad Number	Year Drilled	Doubtful Information	Coal No. 6			Coal No. 5 *		
Township	Range	Section										Depth (Feet)	Altitude (Feet)	Thickness Ft. In.	Depth (Feet)	Altitude (Feet)	Thickness Ft. In.
13 N	11 W	21	1	DU	SCOTT		6900 T	312	170*								
13 N	11 W	21 D7	2	SA	JAN 1 1942		6800 T		170								
					MNCHSTR MC												
					MNCHSTR MC												
					2												

(See cover page for explanation of all symbols)

